FOR PARTICIPANTS ONLY

DP/STR(2)/1
30 March 1979

ORIGINAL: ENGLISH

ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC

Second Meeting of the South-east and East Asia Group of Consultants in connexion with the Implementation of ESCAP Resolution 180 (XXXIV): Strategies for the 1980s

16-21 April 1979
Bangkok

SOUTH PACIFIC ISLAND COUNTRIES: PATTERNS AND STRATEGIES OF ECONOMIC DEVELOPMENT, 1975-1990*

* This paper has been reproduced as submitted by C.G.F. Simkin, University of Sydney, Australia. The views expressed in it are those of the author and do not necessarily reflect those of the United Nations.

Contents

		Page
A.	Preliminary survey	1
	1. Islands and peoples	1
	2. Natural resources	4
	3. Per capita incomes	9
	4. Health and education	13
	5. Income inequalities	16
B.	The Leontief Scenario X	21
	1. Outline of the Scenario	21
	2. Scenario X for low income Asian and Pacific island countries	25
	3. Trade and aid relations	31
C.	Development plans and prospects	39
	1. Micronesia	39
	2. Papua New Guinea and the Solomon Islands	45
	3. Fiji, Tonga and Western Samoa	55
D.	Conclusions	71
	Bibliography	75

List of tables

A.1	Population estimates, 1977-2000	2
A.2	Estimates of per capita income, 1974-1976, and its real growth rate, 1965-1974	11
A.3	Selected ESCAP countries: dietary and social indicators, c. 1974	15
A.4(a)	Papua New Guinea: income distribution, 1972/73	18
A.4(b)	Solomon Islands: distribution of income from formal work, 1973	19
A.4(c)	New Hebrides: monthly wages by types of labour, 1975	19
B.1	Leontief Scenario X: selected estimates for low income Asian and Pacific countries	26
B.2	Pacific island countries: basic economic data, 1970-1975, related to Scenario X	27
B.3	Pacific island countries: directions of trade, 1975	32
B.4	Pacific island countries: aid flows, 1975	35
C.1	Trust Territory of the Pacific Islands: plan estimates of gross national expenditure and saving, 1976/77-1980/81	40
C.2	Papua New Guinea: growth projections, 1975/76-1980/81	46
C.3	Fiji, Tonga and Western Samoa: planned targets, 1975-1980	57

SOUTH PACIFIC ISLAND COUNTRIES: PATTERNS AND STRATEGIES OF ECONOMIC DEVELOPMENT, 1975-1990

A. PRELIMINARY SURVEY

1. Islands and peoples

The twelve countries considered in this survey extend over a very large area of ocean which stretches from 140°E to 130°W and from 10°N to 22°S. They conveniently divide into three main ethnic or cultural groups corresponding to areas demarcated by the international date line and the equator. In the resulting NW quadrant are the Micronesian islands of the Trust Territory of the Pacific Islands and the Gilbert Islands; in the SW quadrant are the Melanesian islands of Papua New Guinea, the Solomon Islands, the New Hebrides, New Caledonia and Fiji; and in the SE quadrant are the Polynesian islands of Tonga, Western Samoa, American Samoa, the Cook Islands and French Polynesia. Some islands have too small populations to be separately considered here; they are Polynesian Tuvalu, which has just broken away from the Gilbert Islands, Nauru, the phosphate island also near the Gilberts, and, within the Polynesian area, Wallis and Futuna Islands, the Tokelau Islands and Niue.

The combined area of all these islands is only 551,000 square kilometres but their combined population is also small, estimated at 4.7 million in 1977. Population statistics, however, are very unsatisfactory for most countries of this region. Censuses have been infrequent and defective. Registrations of deaths, and more particularly births, have encountered difficulties which make them inadequate or suspect. The data reproduced in Table A.1 seems to be the best available, deriving as they do from work of the South Pacific Commission's statistician and demographer. But these experts are acutely aware of the imperfections of their data so that their estimates have to be regarded as approximate.

A population of 4.7 million means an apparently low density of 9 people to a square kilometre, but there is much variation between the islands because of differences in their physical constraints. Melanesia has more than four-fifths of the region's people but an average density of 6-8 people per square kilometre except in Fiji where it is 32. Most of this region comprises what are called continental islands, having comparatively large areas of diverse land forms from alpine uplands to mangrove swamps, abundant forests and substantial mineral deposits. Much land is still little exploited.

/TABLE A.1:

TABLE A.1: POPULATION [illegible] 1975-2000

(population in hundreds, rates annual percentage increases)

	Census		1977	Rate of increase		Forecast population				Density/
	Date	Popn.	Popn.	Natural (a)	Actual (b)	1980	1985	1990	2000	1977 persons/km²
Trust Territory of the Pacific Islands	9/73	1153	1290	3.6	3.1	(a) 1434 1711 (b) 1414 1647		2042 1915	2908 2604	70
Gilbert Islands	12/73	578[1]	535	1.8	1.2	(a) 564 617 (b) 554 589		675 624	807 703	78
Tuvalu			75	1.8	2.6	(a) 79 86 (b) 81 92		94 106	112 136	238
Papua New Guinea	7/66	15787	29080	2.9	2.4	(a) 31684 36552 (b) 31224 35155		42168 38581	56122 50175	6
Solomon Islands	2/76	1964	2060	3.2	3.0	(a) 2264 2650 (b) 2251 2610		3107 3026	4251 4047	7
New Hebrides	5/76	780	995	2.7	1.2	(a) 1078 1242 (b) 1031 1095		1402 1162	1835 1309	5
New Caledonia	4/76	1332	1340	2.3	3.1	(a) 1435 1668 (b) 1468 1710		1802 1992	2262 2703	7
Fiji	9/76	5850	5920	2.5	1.8	(a) 6373 7213 (b) 6245 6828		8161 7465	10647 8923	32
Tonga	12/76	901	900	3.2	1.1	(a) 985 1153 (b) 930 987		1326 1037	1858 1157	120
Western Samoa	11/76	1513	1520	3.2	1.1	(a) 1671 1956 (b) 1571 1659		2290 1752	3138 1955	33
American Samoa	9/74	292	305	3.6	1.6	(a) 329 405 (b) 320 346		493 375	688 440	153
Cook Islands	12/76	181	185	2.7	-0.7	(a) 200 228 (b) 181 175		260 169	339 158	77
French Polynesia	4/77	1370	1370	2.6	3.0	(a) 1480 1683 (b) 1497 1735		1913 2011	2472 2703	42
Other Pacific Islands[2]	-	-	1095	2.6	2.7	(a) 1183 1345 (b) 1186 1355		1529 1518	1976 2021	100
TOTAL	-	-	46990	2.8	2.3	(a) 51058 58607 (b) 50307 56335		67285 63152	88685 79276	9

Notes: 1. Includes Tuvalu.

2. Guam, Nauru, Niue, Pitcairn, Tokelau, Wallis and Futuna.

Source: South Pacific Commission.

...es of natural increase are high in Papua New Guinea[1/] (2.9 per cent) and the Solomon Islands (3.2 per cent), somewhat lower in the New Hebrides (2.7 per cent) and decidedly lower in New Caledonia (2.3 per cent) and Fiji (2.5 per cent). But in New Caledonia Europeans are nearly two-fifths of the population and in Fiji, although Indians are just over half the population, their birth rate has fallen along with that of the Fijians proper.

The Polynesian islands have about a tenth of the region's population in one-seventh of its land area. Here population densities are the highest; 129 to 160 people a square kilometre in Tonga, American Samoa and the Tokelaus, 77 in the Cook Islands, 52 in Western Samoa and 42 in French Polynesia. Rates of natural increase are also high; over 3 per cent in Tonga and the two Samoas, and over 2.5 per cent in the Cook Islands and French Polynesia.

Differences of density are related to the different physical characteristics of the islands, which are classified as high, low volcanic, raised atolls and atolls. The high islands, being largely composed of volcanic materials, often have fertile valleys which can support relatively large populations; the two Samoas, Tahiti and the Marquesas in French Polynesia, Rarotonga in the Cooks, and Ponape and the northern Marianas in the Trust Territory fall into this category. Less favoured are the low islands, especially the raised atolls, and Tonga has a mixture of both. Raised atolls and ordinary atolls, which have the sparsest natural resources, are common in the Tuamotu and Society Islands of French Polynesia, in the Cook Islands, in the Gilbert Islands and in the Carolines and Marshalls of the Trust Territory.

Micronesia has less than 4 per cent of the region's population, and average population densities of 78 in the Gilbert Islands and 70 in the Trust Territory. There is, however, a marked difference in rates of natural increase in these two countries, 3.6 per cent in the Trust Territory and half that rate in the Gilbert Islands. Over the past ten years there has been an even bigger difference in their actual rates of population increase, 3.1 per cent in the Trust Territory and 1.2 per cent in the Gilbert Islands. The reason for rates of actual increase below those of natural increase in the Gilbert Islands is that (in 1972) an eighth of its men work on ships, in Nauru, the New Hebrides or other overseas places.

/A

1/ Papua New Guinea has more than three-fifths of the whole regions's population. Although it is grouped into Melanesia, only its outer islands have a predominantly Melanesian population, and this is but one-seventh of the country's total population. The main island, or papuan, people are a mixed race with Melanesian, Negrito and Australoid characteristics but there is some ethnic distinction between coastal and upland tribes.

A similar explanation holds for lower rates of actual than natural increase in the New Hebrides, Fiji, Tonga, the Samoas, and the Cook Islands. About 2 per cent of New Caledonia's work force (in 1975) comprised New Hebrideans, and many people have gone from Fiji, Tonga, Samoa and the Cook Islands to work in New Zealand, Australia or, more recently, to Canada.

Political groupings and affiliations are important. The islands which make up the Trust Territory have been successively Spanish, German and Japanese colonies, were taken over by the United States during the Second World War and have since been administered by that country as a UN strategic trust territory. American Samoa is, of course, also administered by the United States, and has been since 1899 as an incorporated territory. There is now a bicameral Congress of Micronesia which is to determine the Territory's future political arrangements, but independence has not yet been attained because of difficulties about the status of the Marianas and other districts with separatist tendencies.

There is no immediate prospect, in spite of local demands, for political independence of the French overseas territories of New Caledonia and Polynesia. In spite of their distance from the metropolis, French rule assures that most of their trade is with France and its EEC partners. France also shares, with the United Kingdom, a condominium rule over the New Hebrides. That country now has elected municipal councils and an elected representative assembly, most of whose members seek early independence.

The United Kingdom granted independence to Fiji in 1970 and to the Solomon Islands in 1977; it has also agreed that the Gilbert Islands should be independent in 1979. Most of the Commercial ties of these countries have been with Australia, as have been those of Papua New Guinea. This important Pacific Island country, had been administered by Australia as a mandate until 1975 when independence was granted.

Tonga has long been an independent kingdom, although from 1900 to 1970 it was a British protectorate. Other Polynesian islands, not coming under the United States or France, had been ruled by New Zealand. Western Samoa became independent in 1962, the Cook Islands in 1965, (although only in internal matters) and Niue in 1974. Most of their commercial ties, as is the case for Fiji, are with New Zealand or Australia.

2. Natural resources

Atolls, raised and otherwise, make up most of the land area of the Gilbert Islands and Tuvalu and a good part of that of the Trust Territory.

Their extent of useful land is small and consists mainly of porous soils made from sand, shells and fragmented coral mixed with a little organic matter. They are suited to coconuts and pandanus, and can also support arrowroot, bananas and breadfruit but not well. To grow taro and similar root vegetables, pits have been dug in which plant materials are composted. These atolls can thus support a specialized form of subsistence farming, but have a very restricted range of crops and no animal husbandry. Further difficulties come from rainfalls which erratically vary from excessive to drought.

The high islands of the Trust Territory have decomposed volcanic material and some humus in their soil. But high rainfalls erode this soil and wash out such essential plant nutrients as nitrogen, phosphorous and potassium which have to be replaced by frequent composting. On the steeper slopes erosion has been worst, but it has helped to build up moderately fertile soil in the valleys and coastal plains. Here, besides coconuts, bananas, breadfruit and taro, are grown sweet potatoes, yams and some vegetables. Rain forests in the interior, moreover, and mangrove swamps in tidal flats, provide a limited supply of building timber for local requirements.

Throughout Micronesia, men turn to the sea for a good deal of their families' requirements of food. Within the lagoons, or along the reefs, there have been more than sufficient fish, crabs, squid and shellfish for ordinary needs and, in the sea beyond, turtles, tuna and other pelagian species.

The only mineral resources of Micronesia have been the great phosphate deposits on Nauru and Ocean Islands. Nauru is an independent island, and its phosphate deposit may last for another 20 years. But the deposit on Ocean Island, which has provided the Gilbert Islands with over nine-tenths of its imports and one-third of its budget receipts, is nearly exhausted. The Gilbertise are thus having to look for alternative ways of financing imports and public expenditures, and their chief hope is the development of a fishing industry.

In the Solomon Islands, although nearly three-quarters of the land area comprises steep hills and valleys, coastal swamps or areas of poor soil, there is no shortage of land. It has been estimated that each family requires 2-4 hectares of the remaining land for its own subsistence on a traditional bush-fallow cycle of 5-6 years. Since this remaining area comes to 28,530 square kilometres, there is clearly enough land for such cultivation even if the present population of 193,000 trebled or quadrupled. Better methods of cultivation, moreover, could be used. Much of the non-cultivated area, too,

/could

could provide useful forests. Before large-scale logging began, in 1963, about 8 per cent of the land area was covered with natural forest of potential commercial value. By 1975, one-seventh of this forest had been logged but replanting began in 1967 at a low rate of 800 hectares a year, soon to reach 5,000 hectares a year.

Papua New Guinea, the largest of Melanesia's continental islands, has much greater resources of cultivable land and useful forest, and also considerable mineral deposits. The outer islands of Bougainville, New Ireland and New Britain have rather similar resource characteristics to those of the Solomons; but Bougainville now has one of the world's big copper mines, while New Britain produces most of the valuable cocoa crop in addition to copra and timber, and New Britain also produces all of a new export of palm oil.

More than four-fifths of the country's people are on the eastern half of the great mountainous island which is divided between Indonesia and Papua New Guinea. This mainland of the country has a climatic contrast between a northern half, which is partly subject to Asian monsoons, and a much drier southern half. (Port Moresby's rainfall is about a third that of Lae.) The two halves are divided by steep and extensive ranges which also fragment the continental island. Population has concentrated in the upland valleys because the swampy lowlands of the north are not suited to native agriculture and the arid south is not so favourable to it. These valleys are fertile enough to prevent any quantitative shortage of food, although diets are protein-deficient in areas lacking access to fish. Highland areas, however, have proved very suitable for such commercial crops as coffee and tea. Forest resources are abundant throughout the country which, indeed, contains nearly as much closed forest as the Philippines and Malaysia put together. But transport difficulties of a rugged terrain have limited forest development and impose great difficulties on mineral projects. Besides the Bougainville copper mine, there are major copper prospects in the West Sepik Province and in the Madang Province, plus a chromite prospect in the Morobe Province.

The New Hebrides still has weakly active volcanoes, also resembles the Solomon Islands and, like that country, is free from population pressure. Copra is the major crop and export, but cocoa and coffee are also grown and the country is suited to other crops and to raising cattle, although exports of cocoa and meat are still small and are negligible for coffee. Fishing, however, contributes nearly as much to gross exports as copra. Forestry has a considerable potential but exports of timber ceased in 1974 when species of

interest to a French company working on Eromanga became exhausted. Manganese deposits are exploited in Vate and contribute about 6 per cent to export receipts, rather more than does cocoa.

New Caledonia, on the other hand, obtains almost all of its export receipts from the exploitation of nickel deposits, which are still far from exhaustion. They provided, in 1973, about one-quarter of GDP, or more than six times the contribution of agriculture and at least as much as the combined contribution of all other industries and public works. Much forest has been sacrificed to mineral exploitation, which includes some chrome, but forests are now being conserved and provide about as much timber as comes from imports. Agriculture is badly neglected although the country has a large, fertile and well-watered plain of 30,000 hectares and another 180,000 hectares of tropical soil which could easily be made productive by irrigation. Only a small part of these areas are used for either traditional or commercial farming. A little coffee has been exported along with copra, but food imports, in 1973, were nearly twice the whole estimated value of local agricultural outputs.

Fiji consists of two large islands and nearly 300 small ones, about half of which are inhabited. The large islands are fertile and well watered, with good harbours and rivers. The windward sides of their low mountains or hills are densely forested. About 83 per cent of the land is under Fijian communal ownership and less than 8 per cent of this has been leased; another 7 per cent of the land is held by the Crown. Only 4 per cent of total land is devoted to sugar which, in recent years, has provided more than a half of export receipts. Copra products have provided only about 4 per cent and other agricultural commodities very little. Nor, in spite of its natural advantages, is Fiji anywhere close to self-sufficiency in food. The chief mineral resource has been gold, whose production has declined until it now accounts for only 6 per cent of export receipts. A low grade bauxite deposit has been found and also a copper deposit.

Tonga is less well favoured with natural resources but has much fertile land except in the low coral islands of its Ha'apai group which have sandy soil rather than the usual clay-type. Most of the original forest cover has gone except on the small island of 'Eua. Minerals are lacking although there is promise of oil exploitation on Tongatapu. It is possible, too, that manganese modules could be obtained from the seabed. Farming is of the subsistence type, with copra as the main cash crop, supplemented by bananas and a few fruits or vegetables.

/Western

Western Samoa has two main islands which have strong physical resemblances to those of Fiji; there are abundant streams, dense rain forests and a rich volcanic soil. But there are no known mineral resources. Land is abundant but most of it is strictly held on a form of customary communal tenure which handicaps agricultural progress. Just over 10 per cent is held by the Government and another 4 per cent by its West Samoa Trust Estates Corporation which administers what remains of former German plantations; it produces about 15 per cent of export copra, a good deal of cocoa and bananas, and supplies most of the cattle for local slaughter houses. Pigs and poultry are also raised. Fishing has lagged behind population growth, partly because of progressive exhaustion of stocks within the reefs, and little fishing has yet been attempted beyond the reefs.

American Samoa consists of the large island of Tutuila and six smaller ones. Tutuila is similar to Western Samoa's Upolo or Savai'i but less than a third of its land is suitable for agriculture, the rest being forest. Four-fifths of the arable land is under cultivation, but agriculture serves only local needs. Unlike most other Pacific islands, American Samoa exports no copra but depends for export receipts mainly on a strong fishing industry.

The Cook Islands have a larger land area than American Samoa but half its population. Rarotonga and other southern islands of the high volcanic type are fertile, producing tropical fruits in abundance, but the northern atolls are typically restricted to coconuts, taro and fish. The major export has become citrus and other fruit juices processed by a local cannery, followed by clothing made in two local branches of New Zealand firms. Copra accounts for less than a tenth of exports and shipments of bananas, once an important export, have almost ceased.

French Polynesia consists of five archipelagoes scattered over 4 million square kilometres of ocean but having a land area of only 3,265 square kilometres, Tahiti, the largest island has an area of 1,042 square kilometres and, like most of the Society Islands, the Gambiers, the Australs and the Marquesas, is of the high volcanic type. The Tuamotu Archipelago, however, consists of small atolls. Except in this Archipelago the soil is generally very fertile and well-watered. Over 85 per cent of the land is held by Polynesians although they have leased some of it to aliens, and especially to Chinese who are about 9 per cent of the population. Copra and coconut oil are by far the major exports, although some fruits, vanilla, and shells are also shipped. There is now no forestry or mining activity, and fishing and livestock production serve only local needs. Tourism, in 1975, accounted for 7 per cent of GDP.

3. Per capita incomes

Data for national income is as treacherous as that for population, and figures for national income per head risk error on both sides. Table A.2 reproduces estimates for 1974-1976 of GNP per head by the Asian Development Bank and of GDP per head by the South Pacific Commission; and compares these with 1974 estimates of GNP per head by the World Bank. Save in three cases, there is a fair degree of correspondence between the three sets of estimates if it is noted that there is a degree of arbitrariness in choosing appropriate exchange rates between local currencies and the numéraire US dollars, and if it is recognized that royalty or profit remittances would put GNP below GDP by a considerable margin in the Gilbert Islands and Papua New Guinea.

The three big discrepancies are in respect of estimates for the Trust Territory, American Samoa and French Polynesia. For the Trust Territory the World Bank gives 1974 GNP per head as only $500, but the South Pacific Commission, using data in the TTPI Five-Year Indicative Development Plan, 1976, put 1975 GDP per head at $1,037 and profit remittances are unimportant here. For American Samoa the World Bank puts 1974 GNP per head at $1,100 but the South Pacific Commission puts it at $4,961 for 1972/73, using data in the 1973 Annual Report for American Samoa. This is a huge discrepancy. For French Polynesia the World Bank's figure of $2,530 for 1974 is close to the Asian Development Bank's figure of $2,674, but far below the $4,346 for 1975 derived from the estimates given by the Institut d'Emission d'Outre Mer in its 1976 report on French Polynesia.

It does not seem plausible that the Trust Territory's per capita income is nearly as low as that of the New Hebrides, as the World Bank's estimates would imply. In 1975/76, US grants to the Trust Territory came to $659 per inhabitant, and there are also large military expenditures associated with the Kwajalein Missile Range which employed, in 1975, 12 per cent of the work force, and at a minimum wage of $2.50 an hour compared with one of $0.80 an hour for other workers. The 1976 Indicative Economic Plan for the Marshall Islands District says that "The present local income level, exclusive of expatriate labour, is approximately $2,400 per year for a fully employed person .... /but/ a tremendous amount of income distribution to non-working members of the extended family dilutes this relatively high figure" (p. 27). It could easily dilute it to the $500 level given by the World Bank. Allowance, however, has to be made for expatriate labour, which is 7 per cent of the work force in the Marshall Islands. That labour would require a remuneration

/of only

of only somewhat more than $8,000 a year to bring average income, in the Marshall Islands, up to the estimate of $1,037 given by the South Pacific Commission. The World Bank estimates, that is, can be taken to indicate the level of indigenes' income only.

The 1976 report by a World Bank Mission in Papua New Guinea comments on the World Bank Atlas figure of $410 or K 320 for average income in that country in 1973. It reckons the average per capita income of expatriates to be K 5-6,000 a year, and that of nationals to be at the much lower level of K 250; for subsistence agriculturists it may be as low as $100 and for PRG nationals employed by the Government as high as K 400. The legal minimum wage for rural workers came to a per capita figure of K 90 and that for urban workers came to K 260. Similar differences probably apply to the Trust Territory and to other Pacific Island countries.

In American Samoa the minimum legal wage is higher than in the Trust Territory or than anywhere else in the Pacific, ranging, in 1976, from $1.00 an hour for workers in laundries or dry cleaners to $1.64 for those marketing petroleum. Fully employed workers could thus have a minimum yearly income between $2,000 and $3,400 or, given an average family size of 6.7 persons, a per capita income of around $400. Considering that expatriate workers are a very small proportion of the labour force, this consideration would point to acceptance of the World Bank figure of $1,100 for per capita GNP in American Samoa rather than the South Pacific Commission's figure which appears to be exaggerated.

The discrepancy between World Bank and South Pacific Commission estimates of average income in French Polynesia as $2,530 - $2,674 in 1974, and the 1975 estimate of $4,346 by the Institut d'Emission d'Outre Mer is hard to explain because the Institut gives an increase of GDP in 1975 of only 11 per cent (in Central Pacific francs). It states definitely, however, that GDP per capita in French Polynesia was two-thirds that in metropolitan France during 1975, and that, of course, is consistent with the estimate of $4,346 per capita. The South Pacific Commission's estimate for 1974 came from the UNCTAD Handbook of Statistics, 1976, and one can only suppose that this is less well based than the Institut's estimate, which will be preferred here.

It would appear, then, that much the highest average incomes in the Pacific Island countries, in 1974, were about $4,000 in New Caledonia and French Polynesia, both associated with a large non-indigenous labour force, the former with a predominant production of nickel, and the latter with the

/TABLE A.2:

TABLE A.2: ESTIMATES OF PER CAPITA INCOME, 1973-1978, AND 1974 RELATIVE TO NEIGHBOURING COUNTRIES
(US $)

	World Bank[a] 1974	Asian Development Bank[b] 1974	1975	1978	South Pacific Commission[b] 1974	1975	1978	Real growth rate	Preferred estimate 1974
Trust Territory of the Pacific Islands	500	-	-	-	-	1,037	-	3.3	1,037
Gilbert Islands and Tuvalu	730	930	1,070	800	1,093	883	786	-0.2	1,005
Papua New Guinea	470	470	470	460	578	470	444	4.1	578
Solomon Islands	310	330	370	410	340	258	-	0.9	300
New Hebrides	480	-	-	-	484[d]	-	-	3.9	484
New Caledonia	4,100	-	-	-	4,212	5,021	4,559	3.8	4,212
Fiji	840	1,010	1,090	1,150	905	1,009	1,019	3.4	905
Tonga	300	320	410	360	324	410	377	-0.2	334
Western Samoa	300	290	320	350	340	-	-	1.3	340
American Samoa	1,100	-	-	-	4,961[e]	-	-	8.2	1,100
Cook Islands	-	-	301[b]	-	-	733	-	-	733
French Polynesia	2,530	-	-	-	2,674[d] (3,958)[f]	4,346[f]	-	-2.6[g]	3,958

Notes: a. GNP.
b. GDP.
c. World Bank estimates.
d. 1973.
e. GNP, 1972/73.
f. Institute d'Emission d'Outre Mer.
g. This estimate appears doubtful as the Institut report on French Polynesia gives the average growth rate of real GDP between 1960 and 1975 as 5.4 per cent and the corresponding rate of population growth as 4.5 per cent.

Sources: World Bank Atlas, 1976.
Asian Development Bank, Key Indicators, Oct. 1977.
South Pacific Commission, unpublished data sheets.
Institut d'Emission d'Outre Mer, Polynésie, 1976.

activity of the Centre d'Experimentation du Pacifique, principally for testing nuclear weapons. This had a profound effect on the economy of French Polynesia from its implementation in 1963. It brought into a work force of less than 30,000 almost 10,000 people from Metropolitan France, and created more than 2,000 new jobs for local workers. GDP quintupled between 1960 and 1970 and, in 1974, the expenditures of the Centre came to CPF 11.1 billion or 27 per cent of GDP.

The next highest level of Pacific Island incomes were around $1,000 in the Trust Territory, the Gilbert Islands, American Samoa and Fiji. In the Trust Territory this comparatively superior level of income also owes much to expatriate employment, a missile range and large metropolitan grants. In the Gilbert Islands, it is due mainly to the rich, but now almost exhausted, phosphate deposits of Ocean Island. In American Samoa it was mainly the result of lavish US grants which, in 1975/76, came to $43.7 million or $1,433 per capita. But, as has been partly seen, subsistence farmers and rural workers have incomes much below these high averages. In the Trust Territory, per capita income ranged over its seven districts from $2,713 in the Marianas to $600 in Truk.

Fiji's superior average income corresponds to its relatively advanced general economic development, itself owing much to the Indian half of the population. Only one-sixth of its GDP now comes from agriculture and one-eighth from manufacturing. Government services, moreover, account for only an eighth of GDP. In the Gilbert Islands, by contrast, a tenth of GDP comes from agriculture, and one-half from mining phosphate; there is no manufacturing industry and government services account for one-fifth of GDP. In the Trust Territory, there is hardly any manufacturing activity beyond copra processing. In American Samoa, however, during 1970, nearly one-sixth of the labour force outside the subsistence sector was engaged in manufacturing, principally making watches and jewellery for local branches of large US firms seeking tax advantages and low labour costs.

Papua New Guinea, with a per capita GDP of $578, also has a range of manufacturing industries, a large mineral export and large grant aid from Australia. In 1972/73, manufacturing contributed 6 per cent to GDP, copper mining 3 per cent (soon to reach 5 per cent) and Australian budgetary grants 10 per cent (as in 1973/74). These grants and other current transfers were $128 million in 1973/74, and exceeded profit remittances by $49 million although such remittances were nearly 9 per cent of domestic factor income. Reference has been made above to the wide gap between incomes of expatriates and nationals and between urban and rural incomes.

/Average

Average income in the New Hebrides was lower at $484 but well above the $324 to $360 range for Tonga, Western Samoa and the Solomon Islands. This difference was associated with a high level of British and French aid to the Condominium which came to $174 per capita in 1974. Europeans, moreover, were 16 per cent of the work force in the monetary part of this economy. By contrast, aid receipts per capita were only $34 in Tonga, $38 in Western Samoa and $67 in the Solomon Islands.

Average incomes of $324 to $360 appear low. But they are exceeded, among the developing countries of the ESCAP region, only in Hong Kong, North Korea, South Korea, Malaysia, Mongolia, Singapore and Taiwan. China's level was only $300, Thailand's $310 and the Philippines $340. In South Viet-Nam the level was $170, and in Laos or Cambodia only $70.

4. Health and education

Measures of income per head are by no means closely related to such more basic indicators of social welfare as those which reflect health and educational conditions. According to the data summarized in Table A.3, and as was noted in the preceding sections, Tonga and Western Samoa have the lowest per capita incomes among Pacific Island countries, but three times the average income of Burma and one and a half times that of Sri Lanka. Fiji and the Gilbert Islands have average incomes in excess of that of Malaysia, which is a comparatively high income country in the Developing ESCAP Region.

But the expectancy of life in Western Samoa exceeds that of the Gilbert Islands and equals that of Fiji. Expectation of life is three years higher in Malaysia than in Fiji and two years higher in Sri Lanka, whose average income appears to be only a fifth that of Fiji's. The Gilbert Islands, moreover, appear on rather implausible figures, to have much lower levels of consumption of calories and proteins than any of the Pacific or Asian countries listed in Table A.3, and such consumption is lower in the Solomon Islands than in Tonga or Western Samoa, although all three countries have much the same level of average income. Burma with one-third the average income of the Solomon Islands, has much the same expectation of life and per capita consumption of calories and proteins. In these respects, too, Burma is ahead of the Gilbert Islands which appear to have nine times its average income.

The literacy rate in Western Samoa is far higher than in the Solomon Islands or Papua New Guinea, and well above those in any of the four Asian countries in Table A.3. Malaysia and Thailand seem to have a greater rate of primary school enrolments than Fiji, and Burma and Thailand a greater rate than Papua New Guinea, the Solomon Islands or Tonga.

/Looking,

Looking, then at health conditions in the Pacific, and comparing these with conditions in Malaysia and Thailand, it appears that expectation of life is much the same in Fiji and Western Samoa as in these two Asian countries. So is per capita consumption of calories and proteins. The infant mortality rate is about the same in Fiji as in Thailand, and only a little higher in Western Samoa than in Malaysia. Persons per hospital bed are also much the same in Fiji as in Malaysia, and even lower than either in Western Samoa. Persons per physician are much lower in Fiji than in Western Samoa or Tonga, and only half the Malaysian figure. But both Western Samoa and Tonga have a lower ratio than Malaysia in this respect, and Thailand's ratio is twice that of Malaysia. It would appear, therefore, that health conditions in Fiji are at least as good as in Malaysia, and in Western Samoa better than in Thailand except in regard to infant mortality. (Sri Lanka also appears to have as good health conditions as much wealthier Malaysia.)

Health conditions in Tonga appear to be as good as in Western Samoa except that the expectation of life is seven years lower. The ADB statistics show a much lower infant mortality rate in Tonga but this figure is suspect.

In the Solomon Islands expectation of life is about the same as in Tonga, but calorie and protein consumption is somewhat lower. Infant mortality is at the rate of 7.7 per cent, much higher than in Fiji, Western Samoa or any of the four Asian countries. The ratio of persons to hospitals is as low as in Western Samoa or Tonga, but that of persons to physicians is twice as high, and more than one-half above Malaysia's or Sri Lanka's level.

Calorie and protein consumption appears to be lower in the Gilbert Islands, as is the expectation of life in spite of a lower infant mortality rate and exceptionally favourable ratios of persons to hospital beds and to physicians.

Papua New Guinea has much the same per capita levels of consumption of calories and proteins as Western Samoa but a very low expectation of life, 52 years, which is associated with a high infant mortality rate of 9.6 per cent. Its ratio of persons to hospital beds is very favourable, but that of persons to physicians is the reverse. So is its literacy rate, although that is even worse in the Solomon Islands. Secondary school enrolment rates are also bad in these two countries.

Two major health targets for Pacific Island countries should be reduce the infant mortality rate towards the 1.5 per cent New Zealand level, and to improve the daily per capita consumption of protein towards the 75 grams level attained in China, Korea, Hong Kong and Singapore. (New Zealand's level of

TABLE A.3: SELECTED SOCIAL STATISTICS OF THIRD ASIAN AND PACIFIC COUNTRIES, c. 1974

		ASIA				PACIFIC					
	Unit	Malaysia	Thailand	Burma	Sri Lanka	Fiji	Solomon Islands	Papua New Guinea	Western Samoa	Tonga	Cook Islands
Daily per capita calorie supply	calorie	2,571	2,371	2,223	2,049	2,652	2,794	2,232	2,643	2,622	2,217
Daily per capita protein supply	grams	56	49	58	43	58	52	46	40	48	51
Life expectancy	year	66	61	58	65	63	54	52	57	56	63
Infant mortality	per 1000 live births	35	22	59	38	21	59	96	77	18[b]	60
Persons per hospital bed	number	340	774	1,167	353	350	76	224	247	298	232
Persons per physician	number	4,227	8,455	5,785	4,007	2,070	2,727	11,740	6,452	3,009	3,076
Literacy rate	per cent	61	84	67	85	-	-	32	13	-	96
Primary school enrolment rate[a]	"	94	90	85	80	82	100	65	73	76	91
Secondary school enrolment rate[a]	"	39	13	14	86	19	23	4	8	59[b]	80
GNP per capita	$	720	310	100	220	1,010	530	470	330	320	210

Notes: a. Age groups on which the ratios are based vary between countries.

b. This statistic is clearly implausible.

Source: Asian Development Bank, Key Indicators, Oct. 1977.

109 grams is quite excessive.) Calorie consumption, save perhaps in the Gilbert Islands, appears to be sufficient and normally there is no quantitative deficiency of food. But in Papua New Guinea and some other Pacific Island countries, anaemia and other diseases connected with protein deficiency are common. Vitamin deficiencies can also be serious, and these result from a narrow range of foodstuffs, such as are produced on atolls, or from excessive use of imported processed foods.

High infant mortality rates are largely due to faulty feeding and care of babies. Nor are inadequate food supplies an important factor in the main endemic diseases - filaria, malaria, dengue fever, hepatitis, typhoid, tuberculosis or venereal diseases. Their reduction depends rather on control of mosquitoes, clean water supplies, better sanitation and personal hygiene.

Fiji has brought tuberculosis under control, and is close to having brought filaria under control, too, as is French Polynesia and perhaps Western Samoa. Other Pacific Island countries have also made good progress in reducing the incidence of some of the diseases mentioned, often with help from such UN agencies as WHO and UNICEF or with help from advanced countries with which they have strong ties, i.e. Australia, New Zealand, the United Kingdom, France and the United States. Much, of course, still remains to be done, both in treating sufferers from such diseases and in furthering preventative measures.

That is also true in regard to education. Primary school enrolment rates are generally high in Pacific Island countries, but not in Papua New Guinea and they are below average in the Solomon Islands, Tonga and Western Samoa. They are lower still in the New Hebrides although both the British and the French administrations there have been taking steps to make primary education universal. It is not universal but quite extensive in New Caledonia and French Polynesia. In American Samoa the education system is based on eight years primary plus four years secondary schooling to which has been recently added a programme for children between 3 to 5 years of age. The very low literacy rate in the Solomon Islands suggest a great need for adult, as well as primary, education in that country; its National Development Plan, 1975-1979, remarks on "the lack of basic education and specific training of local people which has been a feature of the colonial period, though there have been improvements in some areas recently". (Vol. I, p.23).

5. Income inequalities

The most comprehensive statistics of income distribution in any Pacific Island country are those from the input-output study for Papua New Guinea, 1972/73, and from the National Development Plan, 1975-1979, for the Solomon Islands.

/These

These are reproduced here as Tables A.4(a) and A.4(b). For other countries there is only fragmentary information, mainly about minimum or actual wage-rates.

Table A. 4(a) shows that, in 1972/73, 80 per cent of Papua New Guineans were subsistence farmers with an average income of K 239 which gave them only 23 per cent of total income. The remaining 77 per cent, the total income of the monetized sectors, was fairly evenly divided, at that date, between other Papua New Guineans and expatriates, although these expatriates were less than 3 per cent of all income recipients or less than an eighth of Papua New Guineans in the monetized sectors.

Average incomes for Papua New Guineans in these sectors ranged from K 242 for plantation workers, or K 507 for forestry workers, to K 4,129 for those in building and construction. The next most highly paid workers were in mining, with an average income of K 2,032 and in electricity supply or garbage disposal, with one of K 1,658. In other service industries, average income was around K 1,000, except in commerce where it was K 782, slightly below the average in manufacturing, and in domestic service where it was only K 603.

In terms of number of persons, it appears that, in the monetized sectors, over half the indigenous people had average incomes below K 800, three-tenths of them had average incomes between K 950 and K 1,200, and a tenth of them average incomes above K 2,000. But these figures give a very imperfect idea of inequality in personal incomes because there could be considerable variation around the average income for any occupational group.

A better indication of personal inequality is given by Table A.4(b) for the Solomon Islands.

/TABLE A. 4(a):

TABLE A. 4(a): PAPUA NEW GUINEA: INCOME DISTRIBUTION, 1972/73

Occupation	PAPUA NEW GUINEANS			EXPATRIATES		
	Average Income	Percent of Workers	Percent of Income	Average Income	Percent of Workers	Percent of Income
	K			K		
Subsistence farming	239	80.49	47.76	-	-	-
Other farming	242	5.57	3.92	3,610	4.17	2.12
Forestry	507	0.36	0.49	8,130	1.14	1.29
Personal services etc.	603	1.78	2.90	6,351	4.36	3.86
Fishing	656	0.06	0.11	7,015	0.28	0.27
Commerce, finance etc.	782	1.31	2.79	5,200	15.69	11.36
Manufacturing	786	1.59	3.38	5,905	8.46	6.95
Transport and communications	957	1.32	3.43	7,918	7.43	8.18
Education and health	1,082	2.56	7.50	7,258	17.69	17.87
Government and defence	1,123	2.28	6.92	9,637	22.73	30.49
Welfare and religion	1,164	0.65	2.06	535	6.48	0.48
Electricity and garbage	1,658	0.10	0.35	8,202	0.83	0.95
Mining	2,032	0.52	2.83	12,298	4.42	7.56
Building and construction	4,129	1.40	15.67	8,661	7.14	8.60
TOTAL	370	888,537	K328.5m	7,185	24,251	K174.3m
TOTAL: Monetary Sector	990	173,339	K171.6m	7,185	24,251	K174.3M

Note: 83.8 per cent of the active population is in agriculture. Accepting that, and using Baxter's Table 3.59, we obtain an estimate of 715,218 for those in subsistence farming. Their income, according to his Table 3.37, was K 156.9 million.

Sources: P.F. Baxter, An Input-Outpur Matrix for Papua New Guinea, 1972/73, Tables 3.59 and 5.36.

Asian Development Bank, Key Indicators, Oct. 1977, Table 2.

/TABLE A.4(b)

TABLE A.4(b): SOLOMON ISLANDS: DISTRIBUTION OF INCOME FROM FORMAL WORK, 1973

Range (in $A)	Solomon Islanders		Foreigners	
	Number	per cent	Number	per cent
Less than 300	4,211	35.5	-	-
300 - 500	5,183	43.7	-	-
600 - 999	1,799	15.2	52	6.2
1,000 - 1,999	533	4.5	161	19.2
2,000 - 2,999	80	0.7	219	26.1
3,000 - 4,999	48	0.4	256	30.5
5,000 and over	9	0.1	152	18.1
Total	11,863	100.1	840	100.0

Source: National Development Plan, 1975-1979, Vol. I, pp. 26-27.

This table, of course, relates only to the monetary part of the economy and estimates of average income in the subsistence sector range from $A 100 to $150. In 1974, moreover, only 27 per cent of the indigenous work force, and less than 4 per cent of the female work force, appeared to be in formal employment. It appears that nearly 80 per cent of those in formal employment had incomes below $A 600, and nearly 20 per cent incomes between $A 600 and $A 2,000. Another 1 per cent had incomes between $A 2,000 and $A 5,000. There was only a handful of foreign workers, nearly half of whom had incomes above $A 3,000, although many of them were less well paid than indigenous.

There is also some information available about wages in the New Hebrides, excluding the subsistence sector which accounts for about 77 per cent of the work force.

TABLE A.4(c) : NEW HEBRIDES: MONTHLY WAGES BY TYPES OF LABOUR, 1975

	FNH	$
Domestics (food and lodging plus)	5,000 - 8,500	70 - 122
Manual labourers and orderlies	7,500 - 12,000	106 - 170
Workmen	9,500 - 18,000	135 - 255
Skilled workmen	12,000 - 45,000	170 - 638
Technicians	35,000 - 99,000	496 - 1,403
Engineers etc.	77,000 - 145,000	1,090 - 2,054

Source: Institut d'Emission d'Outre Mer, Rapport d'Activité Exercise 1976, Nouvelles Hébrides, p.26.

The only information published for income distribution in Fiji is that its Gini coefficient has been estimated at 0.45[1/], indicating a considerable degree of income inequality as the comparable figure for Australia is 0.313.

It is clear, from these statistics, that the biggest part of the problem is the high proportion of workers in the subsistence sector (three-quarters to four-fifths in these Melanesian countries) and their low productivity, which makes their average income perhaps only a quarter of that of a skilled indigenous worker. For this reason, as we shall see, most governments of the region aim, in their economic plans, at measures which will reduce the big disparity between rural and urban incomes.

In Papua New Guinea there has also been a serious problem in the great disparity between the incomes of indigenous workers and those of expatriates. Similar disparities exist in the Solomon Islands and in most other countries of the region, but they are less of a problem there because foreigners are a much smaller proportion of the total work force than they have been in Papua New Guinea. That country, and others, are trying to reduce this aspect of the problem by measures of "localization" i.e. replacing foreign employees, especially to government positions, by suitably qualified nationals, although such replacement has not always made for economy or efficiency.

/B

1/ Fiji's Seventh Development Plan, 1976-1980, p.10.

B. THE LEONTIEF SCENARIO X

1. Outline of the Scenario

The General Assembly of the United Nations authorized a study of an international development strategy which would involve a New International Economic Order, and this study has now been made by W. Leontief and his associates. It was published in 1977 under the title, The Future of the World Economy. The key part of this study is Scenario X which assumes, between 1970 and 2000:

(i) the medium growth rates of population based on projections made by the Population Division of the U.N. Secretariat;

(ii) an average growth rate of per capita real gross product of 4.9 per cent a year for developing countries as a whole;

(iii) an average growth rate of per capita real gross product of 3.3 per cent a year for developed countries as a whole, because this growth rate is supposed to decline as higher per capita levels are reached beyond 1970 $4,000 per year;

(iv) a consequent halving, by 2000, of the present gap between per capita incomes in the developed and the developing countries.

Under an alternative scenario which involves "no drastic changes in the economic relations between developed and developing countries", the study finds that "the income gap between the two groups of countries would, by the year 2000, remain roughly where it was in 1970". (p. 9).

Scenario X, on the other hand, assumes that the foreign exchange deficits of developing countries will be eliminated by moves towards a New International Economic Order. These moves include:

(i) an improvement in the terms of trade between primary products and manufactured goods, the improvement being 190 per cent for minerals and 20 per cent for agricultural commodities;

(ii) a decrease in the dependence of developing countries upon imports of manufactured goods by 10 per cent in 1980, by 18 per cent in 1990 and by 26 per cent in 2000;

(iii) an increase in the share of developing countries in world exports of manufactured goods, by 10 per cent in 1980, by 22 per cent in 1990 and by 35 per cent in 2000;

(iv) larger net inflows of aid (i.e. inter-governmental loans and grants, allowing for debt repayment) to developing countries, from $7.7 billion in 1970 to $15.7 billion in 1980, $34.3 billion in 1990 and $71.3 billion in 2000 (Table 57);

/(v)

(v) larger net inflows also of capital investment to developing countries, from $2.6 billion in 1970 to $8.7 billion in 1980, $27.4 billion in 1990 and $72 billion in 2000.

All values here are given in $ 1970.

The study does not say how such improvement in the terms of trade for primary products is to be achieved, and is also silent about ways of decreasing the dependence of developing countries upon imports of manufactures or of increasing their share of world exports of manufactures. Presumably it expects a high degree of success to attend UNCTAD's efforts in these directions.

In regard to aid and capital flows, the study expects something like a doubling of their proportions to GNP in developed countries by the close of the century. Gross outflows are supposed to rise from 0.85 per cent to 2.0 per cent in North America, from 1.5 per cent to 2.0 per cent in Western Europe, from 0.45 per cent to 1.5 per cent in Japan and to increase for all these countries from $21 billion to over $109 billion. Over the same three decades gross aid outflows from the oil-rich Middle East are supposed to increase from less than $1 billion to over $23 billion, and those from centrally planned economies to increase from $0.73 billion to $3.54 billion.

Long-term private capital inflows into developing countries are assumed to be proportional to their investment. North America, Western Europe and Japan would continue to provide the predominant share of such inflows, and the developing countries' share of world capital inflows would rise from 19 per cent to 57 per cent over the three decades. This large redirection of world investment would require "the solution of such problems as the exercise of sovereignty over natural and other economic resources, as well as national and international regulation of transnational corporations." (p. 62).

It would also require "substantial changes in production technologies" as, indeed, does the whole of Scenario X. But "no attempt was made to quantify the extent to which technological changes are contingent on transfers of technology from abroad". (p. 63).

The study was optimistic regarding possible constraints of a physical kind, at least up to the end of the present century. The main constraints to sustained economic growth "are political, social and institutional in character rather than physical" (p. 11). Here we have some recognition of a parallel demand for a New Internal Economic Order.

(i) The most pressing problem of food supply in developing countries "can be solved by bringing under cultivation large areas of currently unexploited arable land and by doubling and trebling land productivity." (p. 11). No specific guidance is offered on the technical side of this problem but its solution is said to be "contingent on drastic measures of public policy favourable to such development and on social and institutional changes in the developing countries".

(ii) The Scenario also depends on raising investment in developing countries to 30-35 per cent of GNP. That "may necessitate drastic measures of economic policy in the field of taxation and credit, increasing the role of public investment and the public sector in production and the infrastructure". It is then simply asserted that "measures leading to a more equitable income distribution are needed to increase the effectiveness of such policies". And, again, "significant social and institutional changes would have to accompany these policies".

To sum up, we have a rather dogmatic assurance:

> To ensure accelerated development two general conditions are necessary: first, far-reaching internal changes of a social, political and institutional character in the developing countries, and second, significant changes in the world economic order. Accelerated development leading to a substantial reduction of the income gap between the developing and the developed countries can only be achieved through a combination of both these conditions. Clearly, each of them taken separately is insufficient, but when developed hand in hand, they will be able to produce the desired outcome (p. 11).

To the extent that the study gives content to this assurance, it depends on the feasibility of Scenario X and so upon the plausibility of its empirical assumptions and theoretical methodology. The key empirical assumptions have been set out above, and are often of a sweeping kind, lacking in support from recent experience. That deficiency, however, may be regarded as unimportant because the new international and internal economic orders will be so redical as to make recent experience an unreliable guide to the future. And, if we ask about the content of these new orders, the answer could be any of the combinations of international and internal changes which will realize the results of Scenario X for the year 2000 - a second millenium.

Not much need be said about the theoretical limitations of the Scenario; for it is based on input-output analysis and the limitations of that analysis are well known. It depends, crucially upon:

/(i)

(i) assumptions about final demands which, from the standpoint of the analysis, must be regarded as arbitrary;

(ii) an assumption that constant, or stable, "technical coefficients" hold, not only for manufacturing, transport and communications industries, but also for climatically variable farming, for geologically hazardous mining and for all other service industries however ill-defined their technical inputs and outputs have to be;

(iii) in a futuristic model, such as that from which Scenario X is derived, allowance should be made for transfers of technology, and there are no proper methods for projecting such changes 1/;

(iv) although futuristic, the model (a static closed Leontief one) is not dynamic, but depends upon assumptions of full employment equilibrium at the dates 1980, 1990 and 2000 and so cannot consider dynamic paths nor possibilities of disequilibrium;

(v) for that defective reason, it ignores the important role of the price system in allocating resources and determining factor incomes, above all profit which is a key, directive variable, even within some centrally planned economies.

For all these reasons, the Leontief Scenario X is not to be taken too seriously. Its authors are far from claiming that it is any sort of prediction; they regard it as only a study of the technical feasibility of achieving both further growth of per capita real incomes in developing and developed countries and of halving the 1970 gap between their average incomes by the end of this century. That feasibility depends upon heroic assumptions about terms of trade, aid and private capital flows and investment-income ratios in developing countries, assumption which the United Nations is trying to have realized but which are far from being realized. And even the framework of technical feasibility must be a loose one because changes and transfers of technology over the next twenty years are necessarily highly uncertain in the present state of economic science, orthodox or radical.

/2.

1/ There are only hints about ad hoc devices used in this connexion on p. 11 of the study. It also states that "the scarcity of data for projecting future industrial technology outside of the United States represents a serious limitation for the world projects".

2. Scenario X for Low Income Asian and Pacific Island Countries

The Leontief study divides the world into 15 regions of which 8 are low-income or developing countries and among these is Asia (low income) having over 1 billion people with an average income, in 1970, of only $120. This developing region includes Papua New Guinea, the Solomon Islands, Fiji, the New Hebrides and "Pacific territories and islands, n.e.s." Presumably, therefore, it includes all of our Pacific Island countries although they are almost submerged by this broad aggregation; for, in 1970, their combined population was not 4 million in the 1,023 million of Asia (low incomes) and their combined GDP was less than 4 per cent of world GDP.

Table B.1 gives the main results of Scenario X for Low Income Asia, selected with a view to their relevance for Pacific Island countries. The next Table B.2 sets out, in comparable form, actual economic data for these countries in 1970 and 1975.

In regard to population growth and diet the following points may be noticed.

(i) Actual population growth is already below the target of 2.6 per cent set by Scenario X for 1980-1990 in the Gilbert Islands and Tuvalu, Fiji, Tonga, Western Samoa and the Cook Islands, and near the target in Papua New Guinea and the New Hebrides. But, according to Table A.1, natural rates of increase are over 3 per cent a year in Tonga and Western Samoa, close to this figure in Papua New Guinea and 2.7 per cent in the Cook Islands. The average rate of natural increase for all Pacific Island countries is 2.8 per cent a year and so a little above the rate of population increase for Low Income Asia in 1970. The implication, of course, is that population growth should slow in all Pacific Island countries except the Gilbert Islands, Tuvalu, New Caledonia, Fiji and, perhaps, French Polynesia.

(ii) Daily consumption of calories already exceeds the 1990 target of 2,200 per head in Papua New Guinea, Fiji, Tonga, Western Samoa and, probably, also in the New Hebrides, New Caledonia, the Cook Islands and French Polynesia. It is considerably below this target only in the Gilbert Islands and Tuvalu.

(iii) The 1990 target for daily consumption of protein per head is 54 grams. This has already been approximately reached in Fiji and Western Samoa and, perhaps, also in New Caledonia and French Polynesia. It is not far from

/TABLE B.1:

TABLE B.1: [illegible] FOR LOW INCOME ASIAN [illegible]

	Unit	1970	1980	1990	2000	Growth Rates 1970-80	1980-90	1990-2000
Population[a]	thous.	3,925	5,090	6,576	8,270	2.60	2.54	2.29
Calories per head per day	thous	2.0	2.1	2.2	2.4	0.05	0.05	0.09
Protein per head per day	gram	52	54	58	64	0.04	0.07	1.00
GDP per head	$ 1970[b]	119	151	231	353	2.38	4.25	4.24
Land yield index	p.c.	100	140	224	354	3.36	5.14	4.74
Ratio to GDP:								
Consumption: Personal	p.c.	74.7	76.4	73.3	72.0			
Government		18.3	18.3	18.2	18.2			
Investment		8.8	9.2	15.4	16.2			
Exports		12.7	11.3	10.7	10.8			
Imports		16.2	16.4	19.7	18.7			
Net aid inflow		4.0	3.9	3.2	2.4			
Net capital inflow		0.5	0.4	0.9	0.7			
Outputs								
Copper	T 10^6	0.2	0.2	0.4	0.8	...	6.93	-3.88
Bauxite	"	0.7	1.2	1.8	3.0	4.82	4.82	5.16
Nickel	T 10^3	156	258	557	1,075	4.93	7.77	6.10
Animal products	T 10^6	11	22	42	69	5.26	6.47	4.96
High protein crops	"	29.4	39.3	65.1	98.3	2.90	5.05	4.12
Grains	"	225	321	500	733	3.55	4.43	3.83
Roots	"	44.4	64.7	114.7	179.3	3.77	5.73	4.47
Other agriculture	1970$ 10^9	11.6	16.3	41.7	71.6	3.40	9.39	5.41
Fish catch	T 10^6	9.3	9.3	9.3	9.3	-	-	-
Wood and cork	1970$ 10^9	1.2	2.0	4.5	9.1	5.11	8.10	7.04
Cement	"	0.1	0.1	0.4	1.0	-	13.86	9.16
Construction	"	8.3	15.8	42.4	87.0	6.44	9.87	7.19
Utilities	"	1.0	2.2	6.2	14.0	7.88	10.36	8.15
Trade	"	9.0	16.9	40.9	94.9	6.30	8.84	8.44
Transport	"	5.1	9.3	21.7	44.6	6.01	8.47	7.20
Communications	"	1.1	2.0	4.8	10.0	5.98	8.75	7.34
Services	"	17.0	33.1	89.6	193.4	6.66	9.96	7.69

Notes : a. Population of Pacific Island countries only.
b. Values are in $ 1970.

Source: W. Leontief, et al.; The Future of the World Economy, 1977.

TABLE 9.2: PACIFIC ISLAND COUNTRIES: BASIC ECONOMIC DATA, 1970-1975, RELATED TO SCENARIO A

	Date	Population '000	Daily supply per head: Calories	Daily supply per head: Protein Gms	GDP per head $	GDP per head: Constant Prices	Percentage of GDP: Personal Consumption	Percentage of GDP: Govt. Consumption	Percentage of GDP: Investment	Percentage of GDP: Exports	Percentage of GDP: Imports	Percentage of GDP: GNP Transfers	GDP $ m.
Trust Territory of the Pacific Islands	1970	101											
	1975	122			1,037*		63.6	36.3	29.0	14.1	44.1	53.8	126.5
Growth rate		3.8											
Gilbert Islands and Tuvalu	1970	52	1,768	32.6		1,000							
	1975	59	1,794	32.3	983*	1,692	32.6[a]	15.6[a]	6.0[a]	69.4[a]	33.6[a]	7.6	58.0
Growth rate		2.6	0.3	-0.2		9.7							
Papua New Guinea	1970	2,418	2,225	46.8	249	1,000	66.1	30.8	35.6	19.2	51.9	64.4	602.4
	1975	2,757	2,232	47.8	480	1,540	47.3[a]	22.3[a]	10.7[a]	52.2[a]	31.5[a]	28.7	1,323.4
Growth rate		2.6	0.1	0.4	13.4	8.6							
Solomon Islands	1970	163	2,121	41.3	196	1,000	81.7	19.4	14.8	25.7	41.6	25.9	31.9
	1975	193	2,063	40.1	326	1,506				35.1	46.1	23.9	62.5
Growth rate		3.4	-0.7	-0.1	10.2	8.2							
New Hebrides	1970	83				1,000							
	1975	76			480*	1,692				24.3	84.6	24.9	64.1
Growth rate		2.9				10.5							
New Caledonia	1970	110			(3,340)	1,000							(367.4)
	1975	132			5,021	1,529				27.1	34.7	1.8	662.5
Growth rate		3.8			8.5	8.8							
Fiji	1970	520	2,430	50.3	4,424	1,000	67.3	14.7	21.6	46.6	53.2	3.3	230.5
	1973	563	2,652	57.6	1,142	2,005[b]	52.9	16.0	30.2	41.1	60.2	2.1	649.6
Growth rate		1.9	7.7	7.7	19.3	13.8							
Tonga	1970	86	2,475	41.5	166	1,000	77.9[c]	17.2[c]	21.2[c]	20.7	43.9	9.6	14.3
	1975	90	2,622	46.4	434	1,657	82.9	16.4	25.9	17.0	48.6	8.6	39.1
Growth rate		0.9	1.2	2.1	19.3	20.7							
Western Samoa	1970	142	2,315	53.9	159	1,000				20.8	60.1	6.9	22.6
	1975	151	2,217	51.3	346	1,609				13.9	68.9	14.5	52.2
Growth rate		1.2	-0.9	-1.0	15.9	8.8							
Cook Islands	1970	20.7			443	1,000	80.1	31.9	26.1	32.4	70.5		9.2
	1975	18.1			689	1,764				18.1		43.2	12.5
Growth rate		-2.7			8.8	11.4							
French Polynesia	1970	108				1,000				5.3[d]	57.0[d]		
	1975	131			4,346*	1,645				4.4	49.6	1.9	569.3
Growth rate		3.9				10.0							
TOTAL OR AVERAGE	1970	3,925[f]	2,250	47.0	267	1,000							
	1975	4,450[f]	2,288	48.8	573	1,627							2,550.0
Growth rate		2.5	0.3	0.7	15.3	9.7							

Notes:
a. 1974.
b. GNP deflator as CPI series is broken.
c. 1971.
d. 1972.
e. Weights are populations.
f. Includes other Pacific Island countries with population of 132,000 in 1975.
* Excluded from average.

Sources:
Asian Development Bank, Key Indicators, Oct., 1977.
South Pacific Commission, unpublished data sheets.
Institut d'Emission d'Outre Mer, 1975 Reports on New Hebrides, New Caledonia and French Polynesia.
Trust Territory of the Pacific Islands: Five Year Indicative Development Plan, 1976-1981.

being reached in Papua New Guinea and Tonga, but there is again a wide gap for the Gilbert Islands and Tuvalu.

In regard to average GDP, the Pacific Island countries had a figure of $810 in 1970 or, in terms of 1970, $492, well above the target of $353 set for Low Income Asia by 2000 or that of $231 set for this region by 1990. There were, of course, as has been previously shown, big income differences among Pacific Island countries, ranging, in 1975, from $326 in the Solomon Islands to $5,021 in New Calendonia. But, in 1975, only the Solomon Islands and Western Samoa, among Pacific Island countries, had average incomes, in 1970, below the 1990 target, and their average incomes were not much below it.

Growth of real income per head is another matter. The Leontief targets for Low Income Asia imply growth rates of $4\frac{1}{4}$ per cent a year for this basic variable. But, according to the World Bank Atlas, growth rates of real income per head, over the decade 1975-1974, were near or above this target rate only in Papua New Guinea, Fiji and American Samoa. (Table A.3). According, however, to Table B.2, over the boom years 1970-1975, this target growth rate would also have been exceeded in Tonga and Western Samoa but performance was well below it in the Gilberts, and the Cook Islands. From this one could suppose that the target income growth rate of Scenario X is feasible for most Pacific Island people, even without the drastic changes of new international or internal economic orders.

Agriculture, including fishing, is the main source of income in Pacific Island countries as between 42 and 85 per cent of people are engaged in this activity in all of them except the Trust Territory, the Solomon Islands, New Caledonia, American Samoa and Niue. But there are indexes of agricultural production only for Fiji and Tonga. Between 1970 and 1976, Fiji's index shows a 2.0 per cent annual rate of decrease and Tonga's a 3.9 per cent annual rate of increase, as compared with the target rate of about 5 per cent set by Scenario X for the 1980s. Nor can one get much help in this connection from national income estimates as no other Pacific Island countries have regular recent estimates of real contributions from agriculture. Estimates for money contributions are available for French Polynesia, and these suggest that real agricultural output there may have declined by 2-3 per cent a year between 1971 and 1975. In Papua New Guinea, the contribution of agriculture, forestry and fishing to GDP

/declined

declined from 42 per cent in 1966 to 35 per cent in 1972, and only half of this relative decline could be attributed to the operation of the Bougainville copper mine.

These fragmentary figures support a general impression of slow growth in the agricultural, largely subsistence sector of Pacific Island countries. Yet they have a potential for agricultural growth. In regard to the aspect of bringing more land into use I. Fairbairn[1/] has observed:

> In many Pacific countries the amount of additional land which could be developed for agricultural use - either for root and tree crops or grazing - is abundant. This is true of Papua New Guinea, Fiji, the British Solomons, Western Samoa and even smaller islands like the Cook Islands. In addition, most of these countries have large areas which are considered unsuitable for intensive agriculture or pastroral use but are nonetheless suitable for forestry purposes.

He goes on to point out that such is not the case in Tonga, the Gilbert Islands, Tuvalu and many smaller atolls.[2/]

Land tenure, however, is a serious problem both for bringing unused land into cultivation and for improving either rural employment or agricultural productivity. Except in the French territories and the Marianas of the Trust Territory, customary forms of land tenure have become codified and so rigid as to inhibit development. Fairbairn comments:

> Among the major problems encountered are uneven distribution of land resources, to the point where interested individuals often simply cannot acquire land to farm; smallness and fragmentation of holdings; bad location and multiplicity of owners whose interests commonly tend to be widely divergent. These problems appear to be particularly serious in the countries of Polynesia such as the Cook Islands, Fiji, Western Samoa, Tonga and Niue.

Pacific Island countries have been reluctant to take drastic measures for changing their retarding systems of land tenure, partly because of a rational fear of consequential adverse repercussions on their social and cultural life. The immediate problem, therefore, is to make land use more flexible

/without

1/ Ian J. Fairbairn, Rural Development and Employment Promotion: The South Pacific Context, 1976.

2/ A good deal, however, might be done by various methods for improving cultivation of coconuts, pandanus and bananas on such atolls and to introduce such new crops as citrus and sweet corn. Hydroponic methods could also aid vegetable production. See South Pacific Commission, Draft Report on Atoll Cultivation, 1977.

without serious disturbance to customary tenure. A partial solution of leasing is being tried in Fiji and Western Samoa, and another of occupation rights in the Cook Islands, Niue and French Polynesia. The latter was also being considered in Papua New Guinea.

Even without such changes there is an obvious current task, and one that promises good returns, in reviving major cash crops in areas that have suffered from plant diseases, insect pests, plant senescence and storm damage. Banana production, once important, has fallen away in Fiji, Tonga and Western Samoa. Cocoa, also widely grown in some Pacific countries, has similarly declined. Over-aged trees have adversely affected coconut production in many countries, and also coffee production in Papua New Guinea. Replanting schemes, as will be seen, are under way in the Gilbert Islands, the Solomon Islands, Tonga and Western Samoa.

Although the Leontief study spoke of a target for investment as 30-35 per cent of GDP in developing countries, Scenario X estimates for Low Income Asia put this ratio at only 16 per cent for 2000. That has already been surpassed in the Trust Territory, Fiji, Tonga and the Cook Islands, has nearly been reached in the Solomon Islands, and could have been reached in Papua New Guinea. But, in the case of the Trust Territory, Papua New Guinea, the Solomon Islands and the Cook Islands, a high investment ratio has been associated with higher ratios of grants of GDP.

The Leontief study has also stressed an increasing role for the public sector, and this may be indicated by the ratio of government consumption to GDP. Scenario X put this ratio at 18 per cent for Low Income Asian countries in 1980, 1990 and 2000; i.e. it does <u>not</u> increase in spite of what the study says elsewhere. That percentage has been far surpassed in the aid-dependent Trust Territory and Cook Islands. It has also been reached in Papua New Guinea and the Solomon Islands, and is not far from having been reached in Fiji and Tonga.

It has also be noted that Pacific Island countries are far more dependent upon foreign trade than are other Low Income Asian countires, which have an average export-income ratio of about 11 per cent together with an average import-income ratio which is to rise from 16 per cent to 19 per cent. Only in French Polynesia has the export-income ratio been lower than 12 per cent, and the only other Pacific Island countries in which it has been lower than 20 per cent are the Trust Territory, Tonga, Western Samoa and the Cook Islands. The import-income

/percentage

percentage has ranged from 24 in the Gilbert Islands to 85 in the New Hebrides; it has been 32 in Papua New Guinea, 46 in the Solomon Islands, 71 in the Cook Islands, 60 in Fiji, 50 in French Polynesia and 25 in New Caledonia.

The Leontief study emphasizes the development of manufactures in order to increase exports from developing countries and to lessen their dependence on imports. Most Pacific Island countries face peculiarly severe difficulties in developing substantial manufacturing activities because of small populations and large distances from other countries, scattered as they are over 90 degrees of longitude and 35 degrees of latitude. Their most immediate prospect of reducing imports is to increase agricultural, pastoral and fishing activities because food is such a substantial proportion of their imports - from 16 per cent in the Solomon Islands to 38 per cent in the Trust Territory.

3. Trade and aid relations

On a per capita level external trade is of considerable importance in Pacific Island countries; the average level for exports, in 1975, was $284 and for imports $424. But, because of their small populations, the value of this trade was very small on world standards, $1,264 million for exports, or $1,187 million for domestic exports, and $1,896 million for imports. Three countries dominated this trade; Papua New Guinea with exports of $546 million and imports of $461 million, New Caledonia with exports of $312 million and imports of $338 million, and Fiji with exports of $172 million and imports of $257 million. American Samoa and French Polynesia dominated the trade of Polynesian countries; the former with exports of $56 million and imports of $50 million, and the latter with exports of $25 million (of which $20 million were re-exports) and with imports of $279 million.

Table B.3 indicates the geographical distribution of trade for Pacific Island countries in 1975, and shows, among other things, the influence of France and the United States upon their Pacific territories. Almost all the exports of American Samoa go to the United States, and nearly four-fifths of imports come from it. Over half of the Trust Territory's exports, similarly go to the United States or Guam (its naval base) and the United States supplies over half of its imports. France is even more mercantilist. It insists on supplying more than two-fifths of New Caledonia's imports and more than half of French Polynesia's. Three-fifths of New Caledonia's nickel export goes to France.

/French.

TABLE 8.3: PACIFIC ISLAND COUNTRIES: DIRECTIONS OF TRADE, 1975
($ million)

	Trust Territory	Gilbert Islands[a]	Papua New Guinea	Solomon Islands	New Hebrides	New Caledonia	Fiji	Tonga	Western Samoa	American Samoa	Cook Islands	French Polynesia
EXPORTS TO:												
Other Pacific Islands countries	-	-	3.6	1.2	1.2	6.9	15.4	0.3	0.4	0.1		0.9
New Zealand		13.5	2.4				14.0	1.2	1.4		2.7	
Australia		13.0	66.5	0.7	0.1	1.5	16.1	0.1	0.3			
Japan	3.4		147.0	4.4	1.5	68.4	0.6		0.1			
United Kingdom			33.3	1.8	0.1		24.3	0.7				
France			1.7		4.4	174.0	0.1					31.1
Netherlands			4.8			0.1	0.2	3.1	2.3			
United States	3.4		39.1		3.9	36.5	3.2		0.2	(53.7)		
Other Asia			9.2				12.8					
Other Europe			177.3	6.3[c]		0.2	0.7	0.5	1.4			
Rest of World			11.4			5.3	15.7		0.9			
TOTAL DOT			483.1		10.1	292.9	171.1	5.8	7.1			
SPC	6.8[b]	38.7	546.3[b]	15.3	11.7		172.2	3.9	7.0	56.0[b]	2.7	34.9
Re-exports			27.0	0.7		7.9	31.9	0.3	0.1			19.9
IMPORTS FROM:												
Other Pacific Islands Countries		(1.0)	0.3		3.2	3.8	0.6	1.1	1.0	1.1		
New Zealand			4.7		1.3	6.5	33.6	6.0	9.5	1.9	(4.8)	10.2
Australia	(3.8)	(8.0)	224.3	9.9	10.1	33.3	78.6	4.0	8.7	1.3		8.9
Japan	5.7	(1.0)	68.6	3.9	2.6	11.3	41.9	0.9	3.9	3.4		7.2
United Kingdom		(2.0)	25.9	4.0	1.7	6.4	35.8	1.8	2.3	0.1		
France			1.1		8.4	146.7	1.8		0.2			155.1
Netherlands			3.3		0.3	8.2	2.7		0.1	0.1		
United States	19.9		43.1	1.2	0.9	15.5	11.0	1.0	4.7	38.3		48.7
Other Asia			68.3		2.9	21.5	42.8	1.0	3.1	0.7		
Other Europe			22.5		1.8	33.1	8.7		0.7	1.6		
Rest of World			21.0		0.7	73.1	12.7		1.2	0.5		
TOTAL DOT			483.0		35.6	359.4	268.9	17.1	35.4			
SPC	38.3[b]	12.0	461.0[b]	23.1	38.9	338.1	257.4	16.0	35.7	49.9[b]	6.0[d]	282.2

Notes: a. Includes Tuvalu.
b. 1974/75.
c. Includes France and Netherlands.
d. 1973.

Sources: IMF, Direction of Trade, Annual, 1970-76 and Sept., 1977.
UN, Yearbook of International Trade Statistics, 1975.
SPC, Overseas Trade 1975-76.
Australian Department of Overseas Trade, Submission to the Senate Standing Committee on Foreign Affairs and Defence, March 1977.
Institut d'Emission d'Outre Mer, Rapports d'Activité 1975, Nouvelle Calédonie, Polynésie.
American Samoa, 1976, Annual Report.
Trust Territory of the Pacific Islands, Annual Report, 1975.

French Polynesia is in the peculiar position of having domestic exports only a fifth of its total exports, but 85 per cent of its total exports go to France.

The United Kingdom had a far looser grip on the trade of the two countries which, in 1975 were still its colonies. In 1973, it took only 9 per cent of the Gilbert Islands' exports and supplied only 14 per cent of its imports. For the Solomon Islands, in 1975, the corresponding proportions were 12 per cent for exports and 17 per cent for imports. In the more important former colony of Fiji, the export proportion for the United Kingdom was 55 per cent, as it is a major market for Fiji's specialized sugar export, and 13 per cent for imports.

Australia and New Zealand are the most important markets for the phosphate exports of the Bilbert Islands, each taking about two-fifths of this export; the United Kingdom takes most of the small export of copra. As a considerable producer of copper Australia has no need to buy this major export of Papua New Guinea, but it buys much of the coffee and some of the cocoa, timber and rubber which that country exports. In 1974/75 Australia took 14 per cent of Papua New Guinea's exports, but supplied it with 46 per cent of its imports. Australia also buys Fiji's output of gold together with some of its coconut oil and timber to take 9 per cent of Fiji's exports; it supplied, however, 29 per cent of Fiji's imports.

In other years than 1975 Australia has taken more than a quarter of Tonga's exports and, in that year, New Zealand, the only market for bananas, took a fifth and the Netherlands, in exceptional purchases of copra, more than a half. New Zealand also accounts for nearly 8 per cent of Fiji's exports, and for 20 per cent of Western Samoa's exports as against 4 per cent for Australia. New Zealand also supplies an eighth of Fiji's imports, one-third of Tonga's and one-quarter of Western Samoa's. Its foodstuffs find useful markets in Papua New Guinea, New Caledonia and French Polynesia. Moreover, by far the greater part of trade in the Cook Islands, Niue and the Tokelaus in conducted with New Zealand.

Japan's important and increasing role in the region's trade has also to be noticed. In 1975, it took about a fifth of the domestic exports and supplied about a tenth of the imports. It was the major buyer of the Trust Territory's small copra export, and a substantial buyer of much larger exports of copper from Papua New Guinea (56 per cent in 1973/74) and of nickel (22 per cent) from New Caledonia. Japan had relatively little access to the import markets of the

/French

French territories but is a major supplier to the Trust Territory, Papua New Guinea and Fiji.

West Germany is also a major buyer of Papua New Guinea's copper (29 per cent in 1973/74) and the United States buys about half as much nickel from New Caledonia as does Japan. The Netherlands is a significant buyer of cocoa from Western Samoa and accounted for more than a third of that country's export receipts in 1975. Perhaps because of French Polynesia's large tourist and re-export trades, the United States sells much more to that country than does Japan; in 1975 it accounted for 17 per cent of French Polynesia's imports.

Intraregional trade is small and is dominated by re-exports from Papua New Guinea and Fiji. The South Pacific Commission's experts put intraregional domestic exports at $10.5 million in 1975, or 0.09 per cent of the region's total domestic exports, and intraregional re-exports at $19.6 million or 25 per cent of its total re-exports. Lack of direct shipping facilities from major supplying countries to the smaller island countries explains the entrepôt role for the ports of Papua New Guinea and Fiji. Fundamental similarity of a narrow range of agricultural exports explains the tiny role of intraregional domestic exports, together with a lack of industrialization to absorb copper or nickel imports.

It is clear that the trade prospects of Papua New Guinea and, to a much greater extent, those of New Caledonia depend upon the growth of demand for minerals in the industrialized countries north of the equator. The same is true for the New Hebrides and American Samoa as fish exporters, and for the Gilbert Islands, the Solomon Islands and all other countries which hope to develop important exports of fish. Nor is there any great prospect of lesser dependence on the industrialized countries for sales of copra and timber. Nevertheless development of fishing and livestock industries, much greater cultivation of rice, vegetables and fruits in the more fertile islands, could much reduce present dependence on food imports; and, if associated with freezing and canning facilities, could increase intraregional trade - although, perhaps at the expense of Australia and New Zealand.

It is also clear that most Pacific Island countries have large external trade deficits so that they have become heavily dependent on foreign aid. The exceptions are New Caledonia and, for the present, the Gilbert Islands, although both receive substantial grants from their metropolitan powers. Table B.4 summarizes available information about foreign aid, in its various forms, to Pacific Island countries in 1975.

/TABLE B.4:

TABLE B.4: PACIFIC ISLAND COUNTRIES: AID FLOWS, 1975
($ million)

	Trust Territory	Gilbert Islands	Papua New Guinea	Solomon Islands	New Hebrides	New Caledonia	Fiji	Tonga	Western Samoa	American Samoa	Cook Islands	French Polynesia	Total
Grants	82.2	5.5	300.0	14.9	12.4	10.6	13.5	2.5	7.6	20.6	5.4	10.6	507.0
Official loans			-2.5	6.7			4.3	0.4	1.3				
Direct investment	34.2		-2.2	3.8			-6.1						
Private long-term loans			10.1	0.5			8.9						
Guaranteed export credits			-27.4				-0.1						
Loans from multi-lateral agencies		0.9	19.6	0.4			7.5	0.2	4.6		0.1		32.8
TOTAL	106.4	5.7	297.6	25.3			20.1	3.1	13.5	47.5	5.5		
of which grant aid from													
United States	82.2									47.5			129.7
United Kingdom		5.5		14.8	8.9								29.3
France					3.5	10.6						10.6	24.7
Australia[b]		0.3	231.5	0.4			4.7	0.8	2.6				240.1
New Zealand			1.5				4.3	1.4	3.1		5.3		15.6
Official and multi-lateral aid:													
per capita	677	108	115	134	129[c]	80[c]	44	34	89	698[c]	304	81[c]	
per cent of GDP	65	11	34	35	27[c]	2[c]	4	8	26	84[c]	44	3[c]	
per cent of imports	215	48	69	95	32[c]	3[c]	10	16	38	84[c]	92	4[c]	

Notes: a. 1976/77.
b. 1974/75.
c. Grants only

Sources: A.D.B. Key Indicators, Oct., 1977.
Institut d'Emission d'Outre Mer: Rapports d'Activité, 1975; Nouvelles Hébrides, Nouvelle Calédonie, Polynésie.
U.N. General Assembly A/AC.109/L1166: American Samoa, 1 June, 1977.
Australian Development Assistance Agency, First Annual Report for Year 1974/75.
New Zealand Ministry of Foreign Affairs, New Zealand Development Assistance, 1976.
Trust Territory of the Pacific Islands:-Five Year Indicative Development Plan, 1976-1981.

Present levels and allocations of aid depend more upon political influences than upon economic needs. Per capita official plus multilateral aid is much the highest in the two American territories, and the United States gives no direct aid to any other Pacific Island country, although only the two French territories have a higher level of average income than that of American Samoa. France, too, concentrates direct aid on its two relatively wealthy territories of New Caledonia and French Polynesia, but also makes a smaller contribution to the condominium of the New Hebrides. The United Kingdom's direct aid, similarly, goes to its former colonies of the Gilberts and the Solomons, and also to the New Hebrides, although it no longer makes grants to Fiji and has made only loans to Tonga.

By far the greater part of Australia's aid goes to Papua New Guinea, which it administered for over five decades, and this commitment to by far the most populous island country in the Pacific makes Australia much the largest donor in the region, expending twice as much aid as the United States and eight times as much as France or the United Kingdom. New Zealand gives half as much as France and concentrates its aid on the four countries with which it has had the closest political or economic ties - the Cook Islands, Western Samoa, Fiji and Tonga. Moreover Tonga, which was the least colonized, and is about the poorest, of all Pacific Island countries, does worst for aid on a per capita basis, receiving little more than a third of that going to Western Samoa or three-quarters of that going to Fiji whose average income is twice as high.

There is also considerable variation among Pacific Island countries in regard to their economic dependence on aid. The two French territories are the least dependent as official and multilateral aid is less than 5 per cent of their import payments or GDP. Fiji is in a comparable position in regard to to ratio of aid to GDP but, in 1975, aid was equal to 10 per cent of its import payments. In the two American territories, on the other hand, aid exceeded import payments and, in the Trust Territory, was two-thirds of GDP.

The rest of the Pacific Island countries came between the high American extreme and the low French one. In the Solomons official aid has been as much as 95 per cent of imports and 35 per cent of GDP. In the Gilberts it has been 48 per cent of imports but, because of phosphate receipts, only 11 per cent of GDP, a proportion which is bound to rise in the 1980s as the phosphate

/deposit

deposit is exhausted. Papua New Guinea also depends heavily upon official aid which even after the big contribution of Bougainville copper to its exports, came to two-thirds of imports or a quarter of GDP.

The New Hebrides and Western Samoa are about equally, and moderately, dependent on aid for approximately a third of imports and a sixth to a fifth of GDP. Tonga, through hard necessity, is less dependent on aid but more needful of it. In 1975 Tonga received less than half of the per capita aid going to the Cooks which has twice its average income. In 1975, Tonga's aid paid for a seventh of its imports and was equal to a twelfth of its GDP.

A feature of aid to Pacific Island countries is the predominance of grants, most of which are made as contributions to government budgets. The grants made by France to New Caledonia and French Polynesia have entirely this form as does that to the New Hebrides, although it is divided there between the Condominium budget and a special French budget which includes expenditures on health and education. Most of the grants made by the United States to the Trust Territory and American Samoa have also been general contributions to their budgets although a proportion has been for special purposes.

The United Kingdom's grant to the Gilbert Islands has been for development projects which are now administered by the Gilbert Islands Development Authority. Local revenues have more than sufficed for current government expenditures because of the phosphate royalties and, indeed, have recently been used to build up a Revenue Equalization Reserve Fund against the imminent exhaustion of the phosphate deposits. In the Solomon Islands, the recurrent budget has been balanced by a grant from the United Kingdom which also finance most of the capital budget.

Australia's big grnat to Papua New Guinea of $298 million 1974/75 included $137 million in respect of employment of, and termination benefits for, Australians in the civil service. The remainder was fairly evenly divided between a budgetary grant and a development grant. In 1976/77 new arrangements were made by which Papua New Guinea met all the costs of this dwindling number of civil servants and Australian aid was stepped up more than enough to compensate. It was to be $A 1 billion over five years and came to $A 190 million in 1976/77, all now untied, but revaluation of the kina reduced the local value of the new grant by about 8 per cent. Australian aid to other Pacific Island countries has been directed to development projects.

In 1975 New Zealand, exceptionally, made a development loan of $1.21 million to Western Samoa and a soft trade credit of $0.73 million to Indonesia. It has also given regular budgetary support to the Cook Islands, Niue and Tokelau. Otherwise its policy is to grant project aid on the understanding that this will involve a maximum New Zealand content.

Aid from the World Bank and the Asian Development Bank is, of course, entirely project aid and, up to 1975, only Papua New Guinea, Fiji and Western Samoa had obtained sizeable multilateral loans. Western Samoa, in 1975, also obtained a subsidy of $420,000 from the IMF under the Oil Facility. No Pacific Island countries had used the Compensatory Financing or Extended Fund Facilities.

The Lomé Convention has opened further possibilities of aid, as well as favoured access to EEC markets. So far only three Pacific Island countries have adhered to it - Fiji, Tonga and Western Samoa. This aid has two main forms; arrangmeents for stabilizing earnings from exports to the EEC in respect of such commodities as coconuts, cocoa and coffee, and financial plus technical help for development projects.

/C.

C. DEVELOPMENT PLANS AND PROSPECTS

1. Micronesia

The two countries of Micronesia both have a problem of seriously unbalanced economies. The Trust Territory has become seriously distorted through a damaging excess of U.S. aid and is seeking both political independence and a more viable economy. The Gilbert Islands have also become highly dependent on metropolitan aid and even more dependent on a soon to be exhausted phosphate deposit. It, too, is seeking political independence and a set of alternatives to phosphate income on the basis of quite meagre economic resources.

The Trust Territory has accepted, in June 1976, a Five Year Indicative Plan, and there are similar plans for some of its seven districts which are to obtain decentralized powers and whose economies are all largely independent of one another. The Indicative Plan has two major objectives:

(a) to correct present serious imbalances between consumption and income (which fell short of consumption, in 1975, by 15 per cent) saving and investment (which exceeded saving by 140 per cent), and exports and imports (which exceeded exports by 364 per cent);

(b) to stimulate production so as to raise average income levels by nearly a fifth at the same time that dependence on aid is reduced.

In regard to this second objective, high priority is given to developing agriculture and marine resources. All local industries, however, are to be fostered so as to increase exports and provide substitutes for imports. Tourism is also to be developed.

Big constitutional changes were expected over the period of the Plan and these, together with the search for new economic directions would make for such uncertainties as to prevent detail or precision in the Plan. But it did give a table for estimated GDP and foreign exchange requirements (p. 59) from which Table C.1 is derived.

/TABLE C.1

TABLE C.1: TRUST TERRITORY OF THE PACIFIC ISLANDS: PLAN ESTIMATES OF GROSS NATIONAL EXPENDITURE AND SAVING, 1976/77 - 1980/81

($ million; annual percentage change)

	1976/77	1980/81	Growth Rate
Gross National Expenditure:			
Private consumption	61.8	78.8	6.3
Government consumption	46.0	46.0	0.0
Private capital formation	21.7	27.4	6.0
Government capital formation	12.7	12.7	0.0
Exports of goods and services	12.6	16.6	7.1
less Imports of goods and services	-58.8	-60.4	0.7
GDP	96.0	121.1	6.0
Saving:			
Private	11.7	14.8	6.1
Government	-39.2	-34.2	3.4
Foreign aid	61.9	59.5	-0.1
GCF	34.4	40.1	3.9

The target growth rate for GDP was 6.3 per cent a year which, together with an assemed rate of 2.6 per cent for population increase, would have meant a 3.7 per cent growth rate for average income, lifting it from $744 to $840 (in constant dollars) between 1976/77 and 1980/81. Government expenditures on consumption and investment, which had absorbed a very high proportion of 61 per cent of GDP in 1976/77, were both to be held constant in real terms so that there would be a marked switch of economic activity to the private sector. Both private consumption and private investment were to grow, on balance by about 6 per cent a year. Import-growth was to be slowed down to 0.7 per cent by freezing real imports of consumption goods. Foreign aid requirements, assuming a fall of one-eighth in a high level of government dissaving, would fall from $62 million or 65 per cent of GDP to $60 million or 50 per cent of GDP, still an exceedingly high proportion.

A good deal of unemployment prevails in all districts, and averaged 8 per cent of the work force in 1973. It has led to loss of technical skills and motivation as well as to high crime rates. This problem calls for job retraining schemes. It had been associated with an unsatisfactory growth of local production by only 1 per cent a year in the previous five years. In the civil service low productivity necessitated the use of several workers for a job that could easily be done by one well-trained man, and wages were so high relatively to productivity that employment in the private sector suffered.

There is, too, an uneven distribution of average income between districts largely because of variations in the government payroll. In 1974/75, average GDP was $2,713 in the Marianas, $1,103 in Palau, $974 in Yap, $839-$853 in Ponape and the Marshalls, and $600-$630 in Truk and Kusaie. This inequality would, to some extent, be redressed by freezing real government spending while real GDP increased, and also by directing a greater proportion of such spending to economic development. Emphasis is also put on decentralizing government activities to the districts and municipalities.

The areas that promise most for growth of employment and real income are agriculture, fishing, forestry, small-scale industry and tourism. Agriculture, of course, is the major productive sector and the one in which under-employment is most serious. Population density has become high in agricultural areas with the consequence of an unhealthy urban drift. Yet the Territory is far from

/producing

producing enough food for local needs. Constraints arise from the restrictive tenure system, small holdings, high labour costs, an education system which is biased towards training for 'white-collar' jobs, lack of motivation among farmers, strong consumer preferences for imported foods, deficient local transportation and high transport costs to export markets. Land is a very scarce commodity and valued more for the social prestige which its ownership confers than for its economic value. There are only 15,000 acres of land under cultivation and all but 115 of them are used for subsistence farming. Another 77,000 acres are planted with coconut, breadfruit, bananas and pandanas as other tree crops. Forest land, pasture and savannas amount to about 225,000 acres.

The proposed strategy for agricultural development includes:

(a) improving yields of present food crops - mainly taro, breadfruit, cassava and yams - by increasing inputs of fertilizers and seeds, and by extension services to improve agricultural competence;

(b) establishing more processing plants for rice, animal foods, coconuts and fruits or vegetables;

(c) introducing, by means of pilot areas, new crops;

(d) leasing public lands to large-scale commercial enterprises for crops which will increase exports or reduce imports;

(e) increasing and improving the raising of pigs and poultry.

Forestry activities, now minimal, should also be investigated and developed because the Territory imports about 90 per cent of the timber which it uses. Already 75 species of trees have been planted in experimental areas in the Palau and Ponape districts, but there are now no forest reserves set aside in the Territory.

Tuna fishing has a considerable potential if the present crippling shortage of live bait can be overcome or circumvented. It is proposed that sources of bait be identified or introduced. If that is successful, an adequate system of freezers will be needed. More efficient development of reef and lagoon fisheries should be undertaken, too, but strictly with a view to serving local needs.

The development of a manufacturing sector should concentrate, initially, on import substitution industries; e.g. food processing and the manufacture of simple consumer goods requiring local materials and a high labour content.

/Handicrafts

Handicrafts could also be profitably developed. There are already more than adequate facilities for crushing copra, but the few other activities are of the cottage type and within the subsistence sector, although there is a soft-drink bottling plant in Ponape.

The potential for tourism is considered to be great - if direct transport can be developed from Japan and the United States. But tourism can make big demands for infrastructure so that its development requires careful planning.

Internal transport facilities are also inadequate. Improvements are needed to roads, seaports and airports. Inter-island shipping is inefficient and the present fleet should be replaced by seven new ships.

In 1975/76 an international consortium proposed the development of a big port complex in the island of Babelthaup (Ponape District), able to berth supertankers coming from the Middle East and with storage facilities for transhipment of oil to smaller vessels serving ports in Asia and the Facific. An agreement has been made with a Japanese company and bank for a feasibility study, but the whole project has been strongly opposed by environmentalists.

There are few mineral resources. The Japanese, during their occupation, mined the better deposits of phosphate, bauxite and manganese on the high islands. A recent extensive investigation throughout the Territory for onshore minerals reported that there were insufficient indicators of commercial deposits to warrant further exploration work. It is possible that better results will be obtained from offshore explorations.

The position of the Gilbert Islands must become desperate when the Ocean Island phosphate deposites are finished. The Draft Development Plan, 1973-76 said that "great emphasis has been given to agriculture and fisheries programmes, in search of new sources of income to initiate a closing of the phosphate gap, but no tangible results have been achieved so far". One reason was that promises by Britain of sufficient aid to prevent any disastrous fall in the standard of living had taken "much of the sting out of repeated warnings of economic crisis".

The extent of the gap was revealed by the following estimates. Growth of population at an assumed rate of 2.8 per cent a year would require, if the 1972 standard of living was to be maintained, a national income of $19.5 million

/in 1988;

in 1988; i.e. an increase of $6.9 million over the 1972 level. To that sum had to be added $5.0 million for loss of phosphate income but from it might be substracted $2.4 million from interest on the Revenue Equalization Fund, $1.8 million for the result of a coconut subsidy scheme by which it was hoped to add 10,000 tons to copra exports, and perhaps another $1.2 million from remittances by Gilbertese seamen or other workers abroad.

As in the Trust Territory, there had been an undue growth of government expenditure induced, in the Gilberts, by high phosphate receipts as well as by metropolitan aid. This had had the same unfortunate effect of greatly sharpening income inequalities, the biggest manifestation of which was the wide income gap between the subsistence sector and the monetary sector.

The Plan, accordingly, heavily stresses rural development in the hope that this will "spread economic opportunity as well as possible" and also "involve people in the planning and development of their own communities". The potential is limited to agriculture, fisheries, handicrafts and, perhaps, tourism. Coconut programmes would inject $667,000 into rural areas and should markedly increase production by 1976.

By 1974/75, it was also hoped, there would be one or more fishing bases associated with processing plant. But neither handicrafts nor tourism were likely to contribute much to GDP. Difficulties, too, had come to light from an investigation into the possibilities of small-scale manufacturing; they were both technical and psychological in character. But a biscuit factory might be established on South Tarawa and, elsewhere, manufacture of bicycle trailers, string mats, embroidered handbags and small items of clothing. Disappointing results had come from studies of processing coconut products.

Tourism was regarded with considerable suspicion. It would require much from local resources and little that tourists consume could be provided locally. There could also be unfortunate demonstration effects on the local people and damage to their culture.

Later experience showed good reason for some of the Plan's pessimism. The volume of copra exports, so far from increasing, fell by 5 per cent between 1970 and 1975 and, up to 1977, fishing has made a negligible contribution to exports. No fishing base has yet been established although there is hope of a brine shrimp industry at Christmas Island. In 1976, however, a Japanese

/mission looked

mission looked into the adequacy of bait resources and infrastructure for tuna fishing, but postponed consideration of aid until the Gilberts had become fully independent. UNDP, in 1977, approved a project to evaluate tuna and bait resources.

The Gilberts, also in 1977, lost direct shipping connections to Japan and New Zealand when a German line ceased operating from Tarawa. Nor could an alternative Japanese line provide such frequent service to Australia.

Difficulties about improving coconut groves here, as in other parts of the Pacific, arise from the conflicting needs to cut out young palms growing haphazardly in mature groves yet planting new ones in order to ensure a next generation of palms. Because of that, and the slow growth of palms, there are problems of giving farmers the motivation, and security, to undertake improvement. More than that, the small fragmented parcels of land under existing tenure arrangements militate against more productive farming. Co-operative arrangements are needed to overcome this difficulty.

Tuvalu is in an even worse position. Copra, almost the only export, is highly variable in output which, in the peak year of 1974, reached a mere 555 tons. More of those in full-time employment work outside the country than within it, and their remittances of about $A 100,000 a year are a major source of external receipts. In 1976, Tuvalu obtained a grant of $A 840,000 from the United Kingdom but $A 400,000 of this was for furniture to stores to establish the new administration at Funafuti - which had just been damaged by a hurricane. Tuvalu, too, must look to agriculture and fishing but with even more slender natural resources and with similar difficulties.

2. Papua New Guinea and the Solomon Islands

The newly independent state of Papua New Guinea has reached decisions about a national development strategy and an associated national investment strategy. It also has a simple, highly aggregative, econometric macro-model from which the forecasts reproduced here in Table C.2 are derived, and has research in progress to develop multi-sector models based on the results of a recent input-output study of the economy for 1972/73. So far the strategies and forecasts have not been translated into specific programmes or projects but working groups are looking into their development for five policy fields; food, less developed areas, rural education, technology, transport and marketing. Projects prepared by these groups are to go to a Budget Priorities Committee

/TABLE C.2:

TABLE C. 2: PAPUA NEW GUINEA: GROWTH PROJECTIONS, 1975/76-1980/81
(Values in $ 1975/76 million)

	1975/76	1980/81	Growth Rate
POPULATION (thousand)	2,829	3,279	3.0
EMPLOYMENT "	1,250	(1,449)	(3.0)
GROSS NATIONAL EXPENDITURE:			
Subsistence	205	215	1.1
Other private consumption	528	590	2.3
Government consumption	515	467	-1.9
Increase in stocks	16.5	14.8	-2.2
Gross fixed capital formation	274	355	5.3
Exports of goods and services	519	747	7.6
Less Imports of goods and services	-689	-772	2.3
GDP	1,380	1,615	3.2
SAVING:			
Government	-249	-144	10.4
Private	249	274	1.9
Foreign aid	278	301	1.6
GCF	291	370	4.8
BALANCE OF PAYMENTS:			
Net exports of goods and services	-170	-26	31.3
Net property income	-47.3	-76.3	10.0
Net current transfer	-122	-1.6	
Current balance	-97.0	-107.7	-2.1
Net external loans	5.9	-25.5	
Other net capital transfers[a/]	-55.2	1.3	
Capital balance	-49.3	-24.2	13.3

Notes: a/ Excludes Australian grant.

Source: Central Planning Office.

which will assign relative priorities and make recommendations to the National Executive Council. After such selection and revision, projects are to be incorporated in four-year National Public Expenditure Plan, scheduled to begin in 1978. At the same time, there are parallel National Investment Estimates on an annual basis; these will give capital expenditures of all major private companies by industry and province.

Such planning work has recently become complicated, and will probably be damaged, by the passing of an Organic Law on Provincial Governments. Under this law, provinces are to receive all royalties (net of collection costs) from minerals, oil and gas, hydro-electric power, timber and fish; they will also have exclusive power to tax land, retail sales, liquor sales, entertainments and gambling; and they are to receive from the central government unconditional and indexed grants based on 1976/77 expenditures for functions transferred to a provincial government. Such functions include primary education, housing, local licensing and, so long provincial regulation is not inconsistent with national legislation, also community and rural development, agriculture, public works, secondary and vocational education, transport, marketing and employment. Each provincial government, moreover, has a Provincial Development Corporation, initially financed by an interest-free loan of K 100,000 from the central government, empowered to raise money by borrowing, share issues or joint ventures, and able to lend or make direct investments in farming, mining, power, transport, manufacturing etc.

The projections for the five years ending 1980/81 are surprisingly modest, envisaging a rise of average income of only 0.2 per cent or one of 3.2 per cent in GDP. We have seen that the Trust Territory hopes for a rise of 6 per cent in GDP, and shall see that Fiji hopes for one of over 7 per cent and Tonga one of nearly 6 per cent. But export prices had fallen sharply from boom levels in 1975/76, the initial year for the forecast period, quite a low price has been assumed for copper, and also for copra, coffee and cocoa whose prices rose sharply in 1976/77. Nevertheless the forecast growth rate of real export receipts is as high as 7.6 per cent and that of imports is a lesser 2.3 per cent. Gross fixed capital formation is also expected to rise by 5.3 per cent. But a mere

/1.1 per cent

1.1 per cent growth rate is expected for subsistence farming, which accounts for about a seventh of GDP, and real expenditures by government are to decline by 1.9 per cent a year. Private consumption expenditures, within the monetary sector, are expected to increase by only 2.3 per cent a year, for reasons which are not explained, and private saving is expected to increase by 1.9 per cent a year. An inspection of the forecasting model points to pessimistic assumptions about the terms of trade as the explanation, and it was also assumed that no new major resource projects would begin within the forecast period. There is, however, some optimism about capital movements which would more than halve a present substantial net outflow.

The model is of the Keynesian type which assumes quick adjustment of supply to demand and ignores supply constraints except those affecting the balance of payments. But a mere 1 per cent growth rate for the subsistence sector implies no expectation of productivity gains in a type of farming which, in 1975/76, absorbed more than 70 per cent of the work force to provide only 15 per cent of GDP. Nor could there have been much expectation of productivity gains in that part of farming which provides exports of agricultural commodities and which accounted, in 1975/76, for 18 per cent of GDP. It is thought that yields of coconut and cocoa are declining because of over-aged trees. They are partly plantation crops, as are coffee, tea, palm oil and rubber, and plantation outputs had to suffer from the adverse effects of recent political uncertainties and changes upon productive effort or investment.

The Department of Agriculture, Stock and Fisheries has prepared tentative forecasts[1/] of the volumes of major agricultural export crops over the same period 1975/76 to 1979/80. They point to declines of 8.5 per cent for rubber and 4.4 per cent for copra, and to increases of 8.8 per cent for cocoa, 26.8 per cent for coffee, 92.6 per cent for tea and 92.0 per cent for palm oil. Even an increase of 30 per cent over a four-year period means a rate of little more than 6 per cent a year; only tea and palm oil exceed that rate and, in 1975/76, they provided a mere 3 per cent of export receipts. On the basis of these output projections it is difficult to maintain that the forecasts of the Central Planning Office for the agricultural sector or its exports are unrealistic.

/Fishing

1/ World Bank, Papua New Guinea: Economic Situation and Development Prospects, July, 1976; Annex. 1.

Fishing appears to have been ignored, for the reason that it may contribute little more than 0.5 per cent to GDP. Much of it is coastal fishing by villagers for their own consumption. There are a number of overseas companies which conduct tuna fishing, but there is no cannery and a large internal demand for fish has been largely met by imports of tinned mackerel from Japan. The World Bank considered that Papua New Guinea had a "rich potential for fish production", but also observed that "a local cannery may simply be unable to come close to the low marginal-cost prices offered by Japan". (p. 18).

Nor are there specific forecasts for forestry, which contributes a little more than 1 per cent of GDP. Including sawmills and joineries it provided employment, in December 1976, for only 3,887 people. Most forest resources are in isolated areas so that develcpers have to provide infra-structure as well as an industrial facility, and most of the forested land is held by the people who have traditionally occupied it; high costs and difficulties of obtaining rights to exploit forests are thus handicaps to development which has been in the form of many small sawmills built to supply local needs. In 1976 there were only ten "major" companies logging at a monthly rate of 1,000 cubic metres or more, and only one wood chip qperation. The industry's exports were $26.7 million or 4.5 per cent of total export receipts. The Office of Forests has prepared projections[1/] for exports of forest products at constant prices; these point to growth rate of nearly 17 per cent a year between 1976 and 1981. The projections assumed that some major new projects would be begun.

Mining is dominated by Bougainville Copper Ltd. which, in 1976/77 contributed 14 per cent of GDP and provided nearly 47 per cent of domestic exports. Lower grades of ore are now being mined so that no substantial increase of output is expected from Bougainville. There is an even richer copper prospect at Ok Tedi in the remote Star Mountains which present exceptional difficulties to a mining operation, but the Broken Hill Proprietary and its consortium partners are making a full-scale feasibility study. It appears likely that this project will go ahead, and that construction might begin by 1980 - the end of the forecast period. There is also an important copper prospect at Frieda River in the West Sepik Province where a Japanese consortium is conducting investigations, and a less promising one at Yandera in the Madang

/Province

1/ Facts and Figures, 1977, p. 20.

Province but neither is expected to make a contribution until the 1980s. Chromite sands have been discovered on the Morobe coast but little is being done about them.

There has been a good deal of activity in prospecting for oil and natural gas. The most promising discovery so far has been the Pasca field in the Gulf of Papua which may have something like 280 billion cubic metres of gas and 24 million kilolitres of natural gas liquids. Another offshore discovery has been made at Uramu, but a much smaller one, and there have been four onshore gas discoveries, also small. None of these are yet near exploitation, and petroleum exploration is continuing, especially in the Gulf of Papua.

Manufacturing makes a small contribution of only 7 per cent to GDP and employs about 10 per cent of the total work force. It is heavily concentrated around the main towns of Port Moresby, Lae and Rabaul. Growth was fairly rapid in the 1960s but has since slowed down. The World Bank Report comments:

> A noticeable feature of the economy is the almost total absence of handicraft workers and small-scale traders, shopkeepers, and service-repair establishments that provide such a large volume of employment, especially urban, in many other countries. Partly this reflects the fact that PNG's urban growth is quite recent; but it also reflects the restrictive effects of a large number of registration and licensing requirements which the Australian administration introduced to enforce Australian standards of public health, prevent too much competition developing for established (largely expatriate) establishments, and, perhaps, to discourage urban migration ..... The Government is currently reviewing some 60 laws and ordinances to see if they deserve repeal or relaxation in the interest of stimulating employment growth. (pp. 21-22)

There are just over 700 factories and the major ones are those processing coconuts, coffee, tea and timber for export. Others are of the import substitution type, using a good deal of imported materials; they make beer, soft drinks, cigarettes, flour, baked goods, feed grain, footwear, bottles, containers, furniture, paper goods, building materials, paints, plaster, wire products, steel drums and industrial gases. There is a garment factory but no textile mill, no cement works, no sugar mill, no refining of metal or oil, and no manufacture or assembly of metal consumer goods beyond the simplest ones.

/Manufacturing

Manufacturing development is handicapped by small and fragmented markets and by high transport costs; no town has a population above 80,000, only three have populations above 20,000, Lae is 200 miles from Port Moresby and Rabaul is 400 miles from Lae. Other important handicaps are lack of technical and managerial skills and relatively high wages.

The World Bank report has this to say about prospects for manufacturing:

> Investment is expected to be small, and mostly private. It will be difficult to identify opportunities where plants can be built that will be large enough to avoid the high costs of very small units. In general, the present attention being given to specific industrial possibilities seems rather weak. (p. 36).

The Government, however, has drawn up lists of reserved activities, from which foreign investors are excluded, and of restricted activities which require at least 25 per cent ownership and control by Papua New Guineans. The reserved list includes processing of coffee or cocoa and manufacture of handicrafts (except leather). The restricted list includes tea packaging, coffee roasting, manufacture of poultry or stock food, manufacture of ice or ice cream, manufacture of confectionery, bakeries, manufacture of leather handicrafts, repair of motor vehicles and electrical repair shops. There have been few approvals for new foreign-owned manufacuring enterprises in recent years.

There is, however, an Office of Business Development which endeavours to promote industrial enterprise by Papua New Guineans and to give them training in, or advice about, business matters. During 1976 it was trying to develop a rubber processing factory to supply materials for thongs, a project for tanning and leathercraft, outputs of timber products and ceramic ashtreys from its own Small Industries Centre, two hand loom units, a factory making boiled sweets and three blacksmithies; its Report stated that "the art of blacksmithy is unknown in this country". The Office also gave advice to 2,218 clients, half of which were sole traders or partnerships. In addition, it helps with local takeovers of foreign firms and, up to December 1976, had been involved in 59 with an aggregate value of K 3.2 million. None of this suggests vigorous local entrepreneurship.

Considering the large size of its subsistence sector and the weakness of manufacturing, Papua New Guinea has a reasonably developed supply of electricity. This doubled between 1972 and 1976 and gave a <u>per capita</u> 358 kWh

/as compared

as compared with Fiji's 457 kWh. Investigations have been made of the hydro-electric potential of the Purari River, which could be 1,000 to 7,000 MW, far more than enough to supply present requirements but at a high cost. Nothing, however, will be done to develop this potential until adequate uses can be assured; e.g. possibilities of economic processing of bauxite.

Not surprisingly, the Government has decided against industrialization as a strategy for growth, and it has subordinated growth to equity of economic benefits. The country's work force may be expected to grow by 3 per cent a year, four-fifths of them are in rural areas and only a seventh in wage employment, including plantations and public service. Such employment is not expected, on the basis of recent experience, to grow by more than 3 per cent a year but, even if it were pushed up to 5 per cent, would include, by 1986, only 15 per cent of the work force. Opportunities for wage employment and self-employment in urban areas are thus thought likely to absorb a quite small proportion of a growing work force.

The National Development Strategy thus gives over-riding emphasis to rural development in order both to promote employment and to redress economic inequalities. Key policies here include:

(i) improvement and diversification of agricultural production, based on community forms of land ownership, to improve nutrition and to lessen dependence on imported foods;

(ii) co-ordination of extension services, now provided by a number of departments, so as to increase their effectiveness;

(iii) development in rural areas of small-scale industries based on appropriate labour-intensive technologies;

(iv) improving and cheapening transport by building feeder roads systems and increasing coastal shipping services, besides extending the present transport system;

(v) improving storage and marketing facilities in rural areas;

(vi) extending rural electrification;

(vii) mobilizing local savings for local investment;

(viii) redistributing health services in favour of rural areas;

(ix) redirecting education from formal schooling towards vocational training;

(x) in furtherance of all these policies, development of smaller towns to become growth centres for rural areas, providing marketing, educational and other services to them.

/Urban development,

Urban development, generally, is to concentrate on strengthening links with rural areas rather than on the needs of public administration and international trade. But the urban work force will increase more rapidly than the rural one so that employment opportunities are to be fostered by maintaining wage restraints, promoting the use of labour-saving techniques, directing government purchases towards local industries and removing restrictions on the 'informal' business activities to whose importance the World Bank drew attention. Measures, too, will be taken to prevent the growth of uncontrolled squatter settlements in, or around, urban areas. Existing provision of urban facilities is regarded as excessive for Papua New Guinea's economic situation so that further investment in them will be curtailed.

The basic principles of the associated National Investment Strategy are stated as: a strong and healthy economy characterized by growth, stability and sectoral balance; a just and equitable distribution of wealth and income; and fullest possible contribution from both the government and the public sector. The first principle is regarded as very important for agriculture, mining and such manufacturing as is resource-oriented or import-substituting, and as unimportant for tourism. The second principle is regarded as very important for agriculture, fishing and forestry, and as unimportant for mining and other types of manufacturing than resource-orientated or import-substituting.

Foreign investment is to be limited because of a basic aim of independence. In agriculture it will be sought for nucleus estates with associated smallholder or village development (e.g. the palm oil estate in West New Britain), for providing management, processing or marketing facilities to associated smallholders or villages, and for joint ventures with the Government or local groups provided these ventures fit into integrated development of the local area concerned (e.g. sugar, grain crops, legumes and tea). Tuna fishing could also be suitable for joint ventures as could integrated timber projects, many types of manufacturing and tourism.

A national plan for the tourist industry is being prepated because its benefits are recognized. But it should not threaten "unacceptable changes to the quality of life in Papua New Guinea", and should encourage small-scale local operations owned by Papua New Guineans. Because of the high costs of infrastructure, priority has to be given to places which have, or can be cheaply connected to, adequate roads, airfields, telecommunications, sewerage, etc.

* * * * * *

/The Solomon

The Solomon Islands, in its National Development Plan, 1975-1979, also had the modest target of increasing GDP in about proportion to population growth, although that, at 3.6 per cent a year is somewhat above Papua New Guinea's rate. But it was also aiming at a reduction of the annual rate of population growth to 2 per cent a year by the early 1980's in order to make possible an increase of real income per head for the next generation.

Further targets were:

(a) creation of at least 3,500 new wage earning jobs by 1979, roughly in step with the growth of the work force;

(b) local ownership of 25 per cent or more of the equity in the largest commercial enterprises by 1979 - the same proportion as for the restricted investment list in Papua New Guinea;

(c) elimination of recurrent foreign aid in 1980/81;

(d) reduction of trade imbalances with individual countries, and creation of an overall trade surplus in the early 1980's;

(e) introduction of a national currency in 1976 (now achieved) and major government participation in a commercial banking operation by 1978.

In 1976, an investment guide was also published which stressed encouragement for joint ventures with the government or its agencies. Such encouragement involved assistance in negotiating sites, tax relief and duty concessions on imports, purchase contracts for outputs, provision of infrastructure and staff training. Preference was expressed for investment in agriculture, livestock, forestry, mining, fisheries, food processing and small-scale manufacturing, transport and tourism.

The stated aims behind this plan had marked similarities to those of Papua New Guinea. They were:

(i) maintaining the real value of subsistence incomes;

(ii) maintaining also the real value of cash income per head;

(iii) levelling the social and geographical distribution of income;

(iv) extending local ownership and control to all key areas of the economy;

(v) wider distribution of jobs, services and economic opportunities;

(vi) developing mutual interdependence within the country and its regions by location of related economic activities;

(vii) obtaining a more balanced and diversified pattern of overseas trade and aid;

(viii) producing and distributing more and better goods and services at prices accessible to Solomon Islanders.

/It was

It was hoped to reduce population growth through voluntary family planning and by informing people about the need for this in their own and the national interest. It was also hoped to reach towards the other targets or objectives by deliberate management of the budget, incentives for Solomon Islander enterprises, operations of financial institutions, controls over major projects or programmes and encouragement of foreign investment in joint ventures. Area plans would also be prepared to promote interlocking decentralization of processing and other production activities, transport and other infrastructure. Priority, moreover, would be given to investment for developing renewable resources, e.g. agriculture, fisheries and forestry.

In regard to investment in non-renewable resources the Plan mentioned exploitation of bauxite, gold and copper. Bauxite had been found on Rennell Island and Vaghena Island, copper on Hanesavo and gold on Guadalcanal where about 50 men make a living from gold panning. But, in 1975, the only real possibility was bauxite mining where a Japanese company, together with an Australian one, was making a feasibility study. The bauxite concerned cannot be economically processed by ordinary methods so that the study required research into alternative new methods. It was thought that annual outputs might eventually be obtained of 1.5 million tons of bauxite and 0.6 million tons of alumina. The required investment was put at around $2 million. But low prices for aluminium, and other difficulties, made the two companies decide, in June 1977, not to proceed further with the project.

3. Fiji, Tonga and Western Samoa

There is a good deal more optimism about economic prospects in Fiji than in Papua New Guinea. The Seventh Development Plan, 1976-1980, expected employment to grow twice as rapidly as population and real income per capita to grow at a still more rapid rate of 5.4 per cent. Fiji has the advantages that its natural rate of increase is lower at 2.5 per cent and that the unprogressive subsistence sector absorbs less than a fifth of the work force. Investment, moreover, has been at a high 25 per cent of GDP, although much of it has been financed by official aid and by private foreign investment helped by liberal incentives. The Plan goes so far as to say that "over the last ten years it has been discovered that aggregate economic growth per se is not difficult to achieve. Fiji's economy is naturally buoyant and has proved itself resilient to economic troubles elsewhere in the world. It is reasonable to expect a continuation of moderately fast economic growth", (p. 5).

/More than

More than that, Fiji's economic growth since the Second World War has not, as in many other countries, led to social problems such as urban overcrowding and worsening income inequality. "In general it can be said that the material benefits of a 'western' style of development have been won without destroying the quality of life and without undue strain on the social, cultural and political infrastructure". (p. 4).

Nevertheless more attention has now to be paid to more fundamental objectives of social development and, in particular, to a more equitable distribution of the gains from growth. The main beneficiaries of future growth are to be the rural population and more especially the Fijian people as distinct from Indians and other ethnic groups. A major objective will thus be "to decentralize economic activity by location and broaden involvement by race and to enhance opportunities, material living standards and the social and cultural amenities of the rural areas". This will require a comprehensive system of regional planning and a further switch away from subsistence to commercial farming. It may also require more use of farm machinery and larger farms.

Sugar has long dominated the economy, providing about one-fifth of GDP and three-quarters of domestic exports in an economy which is heavily dependent on imports, even for food supplies. Tourism was developed to reduce this dependence on a single crop and boomed during the 1960's and early 1970's, when it may have made a net contribution of 5 per cent to GDP. It also led to a construction boom but this faded along with growth of tourism after 1973. There will be some recovery but Fiji is now looking mainly to the development of forestry to maintain export, and hence income, growth. By the end of the 1980's it expects that pine and hardwoods will be a major source both to foreign exchange and of rural employment. Forest development should also form the basis for a range of new processing industries serving both overseas and local markets. A good deal, too, is expected from further development of commercial fishing now that the feasibility of a tuna industry has been proved. There was also a possibility of some contribution from new mineral discoveries to supplement a small and marginally profitable gold export. In the Namosi area of Viti Levu a large copper find looked promising and a number of companies were prospecting for offshore oil. Low grade bauxite at Wainuna on Vanua Levu had attracted some initial investment from a Japanese company but, in 1974, it withdrew because currency changes had affected economic viability.

/TABLE C.3:

TABLE C.3: FIJI, TONGA AND WESTERN SAMOA: PLANNED TARGETS, 1975-1980
(Values in $ millions, growth rates are annual percentage changes)

	Fiji			Tonga			Western Samoa		
	1975	1980	Growth Rate	1974/75	1979/80	Growth Rate	1975	1979	Growth Rate
POPULATION (thousands)	591	617	1.6	91.2	101.3	2.1	157	160	1.3
EMPLOYMENT (thousands)	151	175	3.0	24.1	28.2	3.2	40.5	45.5	2.9
GROSS NATIONAL PRODUCT:							EMPLOYMENT (thousands)		
Subsistence sector	51.5	51.3	1.0				22.0	21.5	-0.5
Other agriculture, fishing and forestry	87.6	120.0	6.4	19.5	24.2	4.3	3.0	3.5	3.9
Mining and quarrying	5.6	11.7	6.1	-	-	-			
Manufacturing	58.9	87.4	7.8	1.2	3.1	20.3			
Electricity, gas and water	6.2	9.6	8.9				3.5	6.0	14.4
Building and construction	39.1	67.2	11.4	2.0	3.2	10.0			
Transport and communication	30.5	43.9	7.5	1.2	2.3	13.0	1.7	2.2	6.7
Trade and finance	80.7	117.1	7.7	6.7	6.9	0.7	3.0	4.0	7.8
Education	17.1	25.5	8.2	1.8	2.3	4.7			
Health	9.4	13.8	7.8	0.8	0.9	3.5			
Other government services	26.8	40.3	8.5	2.0	2.9	8.0	7.3	8.3	3.3
Other private services	72.2	104.6	7.7	3.5	4.8	6.4		TOTAL	
GDP	547[a]	779[a]	7.3	38.6	50.7	5.6	40.5	45.5	3.0
less Net income paid abroad	-17.0	-37.3	17.0						
GNP	530	742	7.0						
GROSS NATIONAL EXPENDITURE:									
Subsistence	51.5	54.3	1.0	16.6	19.0	2.8			
Other private consumption	312.4	429.5	6.6	18.9	25.0	5.3			
Government consumption	85.0	127.9	8.5	7.1	10.1	7.7	13.6	19.3	9.4
Gross capital formation									
Private	74.1[b]	115.7[b]	9.3	0.8[c]	1.2[c]	9.9[c]			
Government	36.9	65.1	12.0						
Exports of goods and services	294.6	395.1	6.1	16.2	19.0	3.2	8.6[d]	10.5[d]	5.1
Less Imports of goods and services	-295.6	-479.4	8.9	21.9	36.8	10.9	-38.9[d]	-50.4[d]	15.0
GDP	547	779	7.0						
SAVING:									
Government	7.1	25.5		1.1	1.4	4.6	2.9	2.1	-7.8
Private	79.0	61.2		5.2	8.3	7.9	1.4	1.6	2.7
Depreciation									
Foreign aid	43.9	73.0	10.7	4.8	11.7	19.7	9.3	15.2	12.5
GCF	111.2	180.8	10.2	11.0	21.3	14.1	13.8[e]	18.7[e]	7.9

Notes: a. Includes indirect taxes.
b. Includes inventory accumulation.
c. Subsistence sector only.
d. Merchandise trade only; net services were $3.3 million in 1975 and $6.7 million in 1979.
e. Development projects only.

Sources: Fiji, Seventh Development Plan, 1976-1980.
Tonga, Third Five Year Development Plan, 1975-1980.
Western Samoa, Third Five Year Development Plan, 1975-1979.

Sectoral production targets for 1980, and associated GNE targets are shown in Table C.3. Very little growth is expected in the subsistence sector, partly because the number of people engaged in it, so far from sharing in population growth, is to decline by 1,000. Output of sugar cane has a target growth rate of 6.4 per cent a year, a little less than GDP but in striking contrast to recent decline. New areas are to come into cane cultivation and higher yields are expected from better irrigation and inputs. Commercial copra production has a target growth rate of only 1.6 per cent in spite of new planting and increased replanting. The other minor export crops of ginger and passion-fruit have target growth rates of about 10 per cent each.

Acreage and irrigation are to increase for rice, the major import substitution crop; over the planning period its output is to increase by two-thirds. Increases of one-half are planned for maize and tapioca, and increases of two-fifths for sweet potatoes and dala. Very big increases are planned for some other crops; more than a doubling for yams, a trebling for citrus fruits and chillies, a quadrupling for pulses, a sextupling for sorghum, and an octupling for soyabeans.

Substantial increases are also planned for livestock products. Beef is to increase by 16 per cent over the period, eggs by 23 per cent, milk by 62 per cent, pigmeat by 63 per cent and broiler poultry by 93 per cent. Altogether other agricultural production (i.e. excluding subsistence farming and sugar cane) is to increase by 6.7 per cent a year.

That estimate includes fishing and forestry. No output target is given for fishing. But a UNDP/FAO survey reported, in 1973, that 5,000 tons of tuna could be landed annually by 1979 the Government has decided to develop this industry by entering into a joint venture with the Pacific Fishing Company. Further support will be given to commercial fishing of reefs and lagoons, and also to the development of pelagic fishing. Selected villages will be helped to undertake commercial fishing of local resources and experimental fish farming of mangrove ponds and fresh water areas will be extended, together with oyster cultivation and the culture of edible seaweeds. Average annual capital expenditure on fisheries will exceed $1.3 million dollars.

An FAO Report, made in 1972, recommended the establishment of large pine plantations to provide wood chips and/or pulp and timber for a large export. New Zealand aid helped the initial stage of planting 20,000 hectares by 1978 and

/the final

the final aim is now to plant 75,000 hectares. At the same time, the Forestry Department is undertaking regeneration of hardwood forests and exploitation of other indigenous forests although there are some difficulties over land which is largely Fijian-owned. The returns from forestry development are long-term and cannot come during this planning period; felling for pulp is not expected to begin until 1981, and for timber from the new plantations not before 1986.

Building and construction activities have a target growth rate of 11.4 per cent a year during the Plan, although this will depend upon the realization of a forecast growth of 10 per cent for tourism. Government demands on the industry will be heavy, especially for infrastructure and rural projects. One important consideration here is that the industry, having a low capital-output ratio, can generate much employment of labour. Another is the increasing need for housing, and the Housing Authority plans to double completions between 1976 and 1980, 15 per cent of which will be for rural centres and villages.

In the field of transport, the Plan calls for the construction of 711 miles of rural roads, completion of highways across each of the two main islands and improvement of existing roads. Substantial provision is also to be made for improvement of port facilities and inter-island shipping, for modernizing the Government shipyard and for building 33 small vessels. Existing airports are also to be improved and new ones constructed on outer islands. As a result of such investment the contribution of transport to GDP is to grow 7.5 per cent a year, and that of communications by 8.2 per cent. In the latter field emphasis is given to improving and extending post and telecommunication services to rural areas, and also to other Pacific Island countries.

Distribution, mainly wholesale and retail trade, which is dominated by a few large companies, is to have an annual growth rate of 7.7 per cent, about the same as that for banking and insurance. There is a government advisory service to help Fijians undertake business operations and this will be extended as will the lending activities of the Fiji Development Bank. Co-operatives, which conduct much trade in some rural areas, are to be further encouraged to develop their retail facilities, and also to undertake wholesale trade.

Directly and indirectly, tourism is estimated to have made an 11 per cent contribution to GDP in 1975 and it is expected that arrivals will grow by 10 per cent a year during the Plan $344 million will be spent by the

/Government on

Government on developing tourist facilities and efforts will be made to increase the total domestic content of tourist expenditure, more especially by use of local foods and construction materials.

Education expenditures are to grow by 8.2 per cent a year and health expenditures by 7.9 per cent a year. It is hoped to have 98 per cent of children between ages 6 to 13 years attending primary school and to extend fee-free education to lower secondary school classes. Modest, and somewhat hesitant attempts will be made to shape both primary and secondary curricula towards practical education for life in Fiji. Technical schools are also to be further developed, as are various forms of community education.

Health conditions in Fiji are generally good. The main problems are connected with sanitation, nutrition of young children and diseases borne by mosquitoes such as filariasis. In the Seventh Plan more emphasis is put on preventative and on better clinical services to rural areas. Another aim to strengthen family planning in the hope of lowering the birth rate from 2.9 per cent to 2.2 per cent within five years.

Government current expenditure on goods and services, including education and health, are to rise from 15.5 per cent of GDE to 16.4 per cent and government expenditures on fixed capital formation from 6.8 per cent of GDP to 8.4 per cent. But, as revenues are to rise at a rate of 11 per cent a year, government saving will rise from 0.3 per cent of GDP to 3.3 per cent and finance about 22 per cent of government capital spending over the planning period. Private saving was exceptionally high in 1975 because of an extra-ordinary price for sugar. That price must, and did, fall so that private saving is expected to decline from 14.4 per cent of GDP to a more normal 7.9 per cent. Private investment, however, would rise as a proportion of GDP, from 13.5 per cent to 14.9 per cent.

Foreign saving, which is here defined to be equal to the increase in foreign exchange reserves plus the current account deficit, is to increase from 8.0 per cent of GDP to 9.4 per cent. The Plan does not doubt that adequate foreign funds would be available. But considerations about economic independence and the future burdens of debt service have led to a decision that no more than 50 per cent of gross fixed capital formation is to be financed from foreign sources.

Exports of goods and services are expected to grow by 6.1 per cent a year, and so rather more slowly than GDP. Sugar exports, however, are to grow in value at an annual rate of less than 1 per cent because the high price in

/1975 could

1975 could not be maintained. Other exports are to grow at 10.0 per cent and tourist receipts at 8.3 per cent. Imports of goods and services are to grow at an annual rate of 8.9 per cent and to rise from 54.0 per cent of GDP to 61.6 per cent. Net ourflow of investment income is to double absolutely and to rise from 3.1 per cent of GDP to 4.8 per cent.

Such, in broad outline, is the ambitious plan for a higherly dependent economy, a plan which, like others in the Pacific, puts a new practical stress on rural welfare and more even sharing of benefits from economic growth. Targets for growth have been set at considerably higher levels than in Papua New Guinea because Fiji has a much smaller subsistence sector and a large Indian community which is more responsive to economic opportunities than is Papua New Guinea's predominantly Melanesian one. Confidence has come, too, from a favourable development in the postwar period when the world economy was in a strong secular boom.

The targets, however, are plausible only if the world has a quick and strong recovery from its longest postwar recession so that Fiji's tourism and other exports than sugar can achieve 10 per cent growth rates. They also depend, to a lesser extent, upon a prompt reduction of its birth rate to 2.2 per cent. These assumptions can be doubted. But, if the plan succeeds, Fiji will have a better basis for further economic advance in the 1980's; a more diversified and dynamic farming sector, a major fishing industry, a great new forest industry, stronger manufacturing and transport sectors, and perhaps also some extraction of copper and petroleum.

Tonga is in a decidely less favourable position. Its population is much smaller and its natural resources are comparatively meagre. Nevertheless, it, too, has set planned growth rates up to 1980 which exceed those of Papua New Guinea although falling short of Fiji's. GDP is to grow by 5.6 per cent a year, and GDP per head by perhaps 2.4 per cent, depending upon emigration.

Half of Tonga's GDP, in 1974/75, came from farming, perhaps 70 per cent of this from subsistence farming. But whereas Papua New Guinea and Fiji expect output from their subsistence sector to increase by more than 1 per cent a year, Tonga's Third Development Plan, 1975-1980, has a 4.5 per cent target rate of increase for agricultural output. This rate is about the same as that for the annual rate of increase in the index of agricultural output between 1970 and 1975 and hence seems plausible. Export prices, predominantly for coconut products, were expected to fall by 24 per cent in 1975/76 and thereafter to recover to the 1974/75 level by 1979/80. (The comparable price

/of Western

of Western Samoa's copra fell by 65 per cent in 1975, recovered by 23 per cent in 1976 and is expected to have recovered by a further 52 per cent in 1977 to two-thirds of the 1974 level.)

The increase in copra is to come as a result of a revived coconut replanting scheme which is estimated to increase output from 19,845 tons in 1975 to 21,775 tons in 1980 and then to 23,645 tons in 1985. For the decade 1975-1985, therefore, an average annual growth rate of 1.8 per cent is expected for copra. Help in achieving this target is expected from the Stabex scheme, to be applied under the Lomé convention by EEC countries, as this will help to stabilise Tonga's export receipts from coconut products and so reduce uncertainties for farmers.

Between 1968 and 1974 export receipts from bananas had fallen from $T 1.74 million[1/] to $T 0.30 million, and their quantity from 37.7 million lbs. to 6.2 million lbs., mainly because of serious fungal disease. It is hoped that a rehabilitation scheme will lift output to 24.3 million lbs. by 1979 and export receipts to $T 1.20 million, rising to $T 1.75 million in 1984.

There has been another small, but growing export of fruit and vegetables, principally water melons, groundfood, lettuce and tomatoes. This export reached $T 346,000 in 1974 and is expected to reach $T 851,000 by 1980. The Ministry of Agriculture is also promoting a new crop, vanilla, which seems to have export promise.

Tonga's livestock sector had, in 1974, an estimated annual output of about $T 1 million, and is far from meeting local demands for meat or dairy products. Targets here involve an increase in beef from 165 tons to 285 tons, in poultry meat from $T 55,000 to $T 125,000, in eggs from $T 120,000 to $T 150,000, and in pigmeat from $T 26,000 to $T 100,000. Subsidy schemes for these outputs are already operating and will be strengthened. It was also proposed to have a cattle breeding farm on the island of 'Eua to reduce the need to import livestock.

Tonga has only 5,400 acres of native forest and a mere 305 acres of planted forest which the Plan proposed will be increased to 1,172 acres by 1980. Timber production, accordingly, would increase from 51,000 cubic feet to 86,000 cubic feet, partly through a coconut tree milling project which will have an additional advantage of helping to control the rhinocerus beetle pest. This expanded output will reduce dependence on imports but will still leave Tonga far from self-sufficient in timber.

/The country

1/ 1975 $T = $US 1.53.

The country is also very dependent on imports of canned or frozen fish, partly because of over-fishing of lagoons or reefs and a lack of ice-making equipment. In 1974 total landings were put at only 791 tonnes. The Plan calls for an increase to 1,330 tonnes in 1979/80. This is to be achieved by providing a second specialized long-lining vessel for deep water fishing, by establishing in the Ha'apai and Vava'u groups deep water line fishing for snapper and grouper, by providing financial help for new and improved fishing vessels to operate in lagoons and reefs, by providing well-equipped central fish markets at Nuku'alofa and Ha'apai, and by developing a fish distribution service for rural areas in Tongatapu. Vava'u has known advantages for skip-jack fishing, including a supply of live bait, so that an exploratory project has already been established there to which will be added a regional fishing centre.

Small-scale quarrying exists in Tonga but there is no mining. The only mineral prospect has been petroleum, for which a consortium of six companies made a comprehensive survey in 1970 but, after two unsuccessful drillings, abandoned the search in 1974. Two outside experts attempted a reappraisal in 1975 and reported good potential; the Plan hoped that foreign investment would be attracted for systematic exploration.

Manufacturing industry in Tonga includes little beyond a plant for dessicated coconut, another for plastic pipes, a small cannery and a range of handicrafts. It contributed only 3.1 per cent to GDP in 1974/75, and the Plan hoped to increase gross manufacturing output from $T 271,000 in 1976 to $T 1,056,000 by 1980 although that would involve only 428 new jobs. It sees possibilities for coconut based industries producing oil, soap, charcoal, coir, timber and buttons. Other prospects are for a fruit and vegetable cannery, a lime and passion fruit juice plant, processing sugar cane and making starch, flour or animal feed from cassava. A range of light industries might also be established based on Tonga's cheap and reasonably well-educated labour and aiming at import substitution, e.g. aerated waters, biscuits, clothing, footwear and domestic freezers.

Total electricity capacity is 3,000 kW from one new plant and an old one now maintained as back up; both are on Tongatapu. The Plan calls for this capacity to be increased to 7,070 kW including small plants at Vava'u, Ha'apai and 'Eua. These, and associated investments in transmission lines etc. will require a total expenditure of $T 1.2 million. There is also to be an increase of water supply capacity by one-half at a cost of over $T 0.7 million.

/There are

There are little more than 1,400 motor vehicles (including cycles) and only 598 miles of roads, only 54 of which are sealed. Poor condition of most roads makes for unduly high maintenance cost of vehicles and so for costly transport. During the plan about $T 1.3 million will be spent on extending and improving this road system. Another $T 3.8 million is to be spent on port development to facilitate both inter-island and overseas shipping. Since 1972 the Government and the Commodities Board have jointly owned the Pacific Navigation Company which operates four overseas freighters and seven local traders but this Company has had increasingly heavy losses. The Plan called for a thorough investigation of this position with a view to remedying it. The Government also has a small share (1.9 per cent) in Air Pacific, the Fiji-based regional carrier, and South Pacific Island operates international air services as well as regular flights to Fiji and Western Samoa. The Plan envisages improvements to airports and airfields but could not fully determine the cost.

Tourists' spending was estimated at $T 1.7 million in 1975 and, it is hoped, will rise to $T 3.8 million by 1980 when employment in the industry would be 463 people. Major developments here would be the building of a 60 room hotel and two 30 room hotels on Tongatapu, and improvements to water-based facilities for tourists.

Health services are provided almost entirely by the Government. Projects in the field involved reducing the ratio of population to medical officers from 1: 2,986 to 1: 2,560, of dental officers from 1: 11,570 to 1: 7313, of nurses from 1: 429 to 1: 370 and of hospital beds from 1: 315 to 1: 299. Family planning activities, which have helped to reduce the birth rate from 3.33 per cent in 1969 to 2.53 per cent in 1974, are to be extended.

In regard to education, preference is expressed for the present academic type of training rather than the more practical type favoured in Papua New Guinea and Fiji. One reason is that many young people have gone abroad for employment. Targets are modest; to maintain present ratios of pupils to teachers in both primary and secondary schools, to treble enrolments at the Teachers' Training College, and also to treble enrolments at technical and vocational training establishments.

All this planned development would have gross capital formation rise from 26 per cent of GNE to 38 per cent, and grow by 14.0 per cent a year as against rates of 5.8 per cent for GNE and 5.6 per cent for GDP. Government

/saving would

saving would finance less than 5 per cent of it, private saving plus depreciation allowances, nearly 43 per cent and foreign aid nearly 53 per cent. Clearly much is expected of foreign aid, as is also shown by forecasts for the current balance of payments. Exports of goods and services are supposed to grow by only 3.2 per cent a year from the peak 1974 level for the terms of trade, which are forecast to decline by 35 per cent up to 1980. Imports of goods and services, however, would grow by 10.9 per cent a year, and net transfers (mainly remittances from workers overseas) would fall, as a proportion of such imports, from 31 per cent to 14 per cent. The current account deficit, accordingly, would rise from $T 0.65 million to $T 6.4 million.

But the Plan claims that most of $T 26 million required to meet current account deficits over the period 1974/75 to 1979/80 "has already been identified" (p. 74). Bilateral aid, mainly from New Zealand and Australia, is supposed to provide a net $T 14.1 million, multilateral aid $T 4.0 million and UNDP $T 2.0 million, although $T 3.0 million has to be deducted for technical assistance, scholarships, etc.

The Plan does barely mention "a more equitable distribution of national income" (p. 50) as an objective but puts far more stress on creation of employment. Prices and wages have been controlled, but the setting of maximum wages has led to a rigid wage and salary structure which causes a serious shortage of skilled workers, partly through emigration, prevents occupational mobility and discourages movement out of the subsistence sector. These controls were to be reviewed in early 1976 because price inflation had markedly eroded real wages.

Western Samoa, like Tonga, does not stress, or indeed mention, more equal distribution of income. Its Third Five Year Development Plan, 1975-1979, states that "the two major development concerns (are) the requirement for increased production, and the desire for minimum distortion of the traditional Samoan culture".

It is not regarded as feasible to specify a target rate of growth and, indeed, no national income estimates are presented. But there are employment targets and these are given in Table C. 3. They show a growth rate for employment of 2.9 per cent just under the rate of natural increase (3.2 per cent) but more than twice the rate of actual increase for the population (1.3 per cent). Net emigration explains the difference between natural and

/actual rates

actual rate of increase and advantages are seen in such migration, but there is some unemployment which has to be reduced by creating more opportunities for jobs and a slight reduction is envisaged in the number of people engaged in subsistence farming.

The biggest expansion is to be in secondary industries where the number of jobs is to increase by over 70 per cent during the Plan and the proportion of employment is to rise from 8.6 per cent of the work force to 13.2 per cent. In the manufacturing sector, it was proposed to spend $WS 75,000[1/] in renovating the local soap factory, and to establish four new industries in addition to a brewery which was to be built by a West German firm under contract for a joint venture company which includes the Government. These four new industries are a freezing plant for tropical fruit, a coconut cream plant, a coconut oil mill, and a cassava meal plant; they would involve an aggregate investment expenditure of about $WS 1.4 million and create about 270 new jobs. In addition $WS 650,000 should be spent for an industrial free zone and estate and $WS 40,000 on a pilot programme for baby food. Other possibilities were suggested; revival of production of dessicated coconut, processing carrageenans or fish and garment manufacture.

Handicraft production could also be further developed to exploit growth of tourism which, in 1974, grossed $WS 3.2 million with a local content of perhaps 45 per cent. The policy of the Government is to promote tourism in a controlled way which will minimize damage to traditional culture patterns; during the planning period it was hoped to increase visitors by one-half. The five major hotels had, in 1974, 619 beds and another was to be completed in 1977 with another 360 beds. There was also plans for a second stage of this project and for one other joint venture hotel but they are unlikely to be undertaken before 1980. Airport facilities are also to be improved in line with the expected increase of visitors, and $WS 150,000 is to be spent developing scenic and cultural sites.

Employment in commerce, restaurants and hotels is to increase from 3,000 in 1975 to 4,000 in 1979, and in transport and communications from 1,700 to 2,200. The former increase is, of course, connected with tourism and the Plan says little about it. Over the period $WS 9.45 million is to be spent on roads, one-third of it for improving the existing inferior

/network of

1/ 1975 $WS = $US 1.5856.

network of 570 kms. to which another 28 kms is to be added. Another $WS 2.17 million is to be spent on improving harbour facilities at Apia, on building three new lighthouses and for a new inter-island ferry. A new Main Post Office and four new rural post offices are to be built, and other postal facilities are to be improved, at a total cost of $WS 818,000. Extensions to, and improvement of, telecommunications are to cost $WS 53.13 million.

Other improvements of infrastructure include electric power, on which $WS 3.28 million is to be spent, and water supply and sewerage, on which $WS 0.81 million is to be spent. All villages are to receive a piped water supply through a bore-hole drilling project: a new intake, settling tank and treatment plant are to serve the relatively densely populated Northwest coast of Upolu, and Apia is to get a treated water supply. The capacity of the Electric Power Corporation is to be increased from 6.65 MW in 1975 to 10.48 MW by 1979, and this should be sufficient to meet demands up to 1985. This programme is to include a first hydro-electric plant of 1,000 KW.

Agricultural programmes are guided by a perspective that, before the end of the century, Western Samoa could be self-sufficient in meat, milk, eggs and fish, that outputs of coconuts and cocoa could be increased five times above present levels, and that moderate gains of output could be obtained for other crops which could be locally processed or exported. Resource constraints are not important on these fertile and still far from overpopulated islands.

The main constraints stem from the traditional social structure of village life. Attempts to raise agricultural output by bigger flows of inputs are likely to be frustrated unless there are strongly felt demands for the resulting outputs. Hunger is no spur in a land of "tropical affluence", nor is a desire for income to buy consumer goods or assets in a social system where acceptance and prestige depend upon meeting requests, often indirectly expressed, for goods or services. Such egalitarian sharing of income or wealth has an admirable side, but it is not conducive to individual effort or initiative. Much of the attention of villagers, moreover, and much of their resources are devoted to non-economic concerns associated with their culture or their church. There is an overriding concern to preserve this culture and respect this religion so that there is a problem for Western Samoa's economic developers in finding the right motivation for productive efforts. As the Plan says:

/Only when

> Only when the purpose of increased agricultural production is clearly felt at all levels is there likely to be the desired response ... Whatever may be found at the forward end of the string, it is unlikely to be either the personal acquisitiveness of the individual agricultural producer, or a pure devotion to work for its own merit. (p. 83).

For this reason, prominence is given to a Village Development Programme which seeks to increase outputs from the village sector of the economy by fostering a procedure of "planning from below". This sector includes over 60 per cent of the people and controls over 80 per cent of the agricultural land, and will be helped by the Department of Agriculture's Advisory and Extension Division and by the Development Bank. Villages are encouraged to determine their development needs systematically, then to formulate, and carry out, projects in accordance with them. The greatest problem here may be to make village leaders sufficiently aware of the range of opportunities open to their people.

The main export crops are copra and cocoa and their improvement is necessarily a long-term matter. It is estimated that, if only 40,000 acres now in coconuts are made five times as productive as at present by 1995, copra receipts could increase by $WS 15 million in 1975 prices. Fewer, but substantial, further gains would come from more modest improvement on another 40,000 acres. Present yields of coconut land is low, only 1,800 nuts per acre.

So is the yield for cocoa, 3 cwt. per acre. Here, too, improved technology could greatly increase the yield. In West Africa, hybrids of tall and dwarf varieties have a higher genetic potential than usual varieties and come into bearing in four years instead of eight.

The outlook for bananas is less promising because of bunchy-top and leaft spot diseases and a widely dispersed cultivation. Commercial planting is to be encouraged and village production helped by better arrangements for marketing.

About half of Western Samoa's moderate consumption of animal products is now imported, but self-sufficiency is quite feasible. The Plan hopes to achieve this for pork, chickens and eggs. Its targets include a pork output from 50 to 75 brood sows, an egg output from a few thousand layers, and poultry meat from 100,000 to 150,000 broilers. Good prospects are also seen for cattle,

/with targets

with targets of an increase of the present herd of 20,000 to 50,000 by 1985, with another 6,500 head marketed annually, and a corresponding increase of milk production from 1 million pints to double or triple that figure.

A key role in all this agricultural development could be played by the Western Samoa Trust Estates Corporation, a government owned and directed enterprise which farms 20,000 acres of prime land to produce coconuts, cocoa, bananas and miscellaneous crops; it also runs a beef herd of 10,000 cattle, mainly Herefords. For some years output and profits have suffered from unsatisfactory management. The Plan advocated management by a full-time director, and sees considerable possibilities for improving profits while serving "as a test-demonstration unit where promising new practices and enterprises can be subjected to gradual and progressive testing, under commercial management conditions, with a view to their broader adoption, first by USTEC itself and subsequently by village agriculture". (p. 89).

The village catch of fish could be increased from 350 tons to 1,800 tons, and a commercial catch of 200 tons could be started. This would require building another 540 boats and supplying another 970 outboard motors to villagers. Commercial fishing would require 36 boats of 30 to 40 feet length and give direct employment to 60 men. Stocks within reefs and lagoons have been falling off and it is necessary to provide the means of fishing beyond them. Skipjack is abundant in Samoan waters, and suitable bait fish like the Mexican Mollie can be successfully introduced, as experience has shown in American Samoa.

School attendance is not compulsory but the literacy rate is a high 98 per cent of the population. It is hoped to make primary schooling compulsory and to have its curriculum adapted, as in Papua New Guinea and Fiji, towards practical training for local life while ensuring an adequate supply of people with a potential for professional or managerial work. Total expenditure here for a core programme is put at $WS 1.40 million, nearly half of it for developing the Technical College and a seventh for curriculum development.

Western Samoa has a general hospital at Apia, 15 district hospitals and 9 dispensaries in rural areas, and village clinics held by travelling district nurses, supported by village Women's Committees who play an important role in health care, health education and other useful activities.

/There were,

There were, in 1974, 53 doctors, 14 dentists and 12 dental assistants, 300 nurses and 12 health inspectors. There are now no serious endemic diseases, although tuberculosis is common, as is gastroenteritis among children. The Department of Health's two basic current aims are to develop less costly primary health care, by using less trained staff and simpler facilities, and to improve secondary health care in proportion to the need for it. But the most expensive health project in the Plan is the complete redevelopment of the Apia General Hospital at a cost of $WS 3.14 million. Another $WS 0.35 million is to be spent on the rural health service, and $WS 0.83 million on a variety of other health projects.

Within the Public Service $WS 0.31 million is to be spent on a computer centre, $WS 0.30 million to develop economic planning, $WS 0.32 million on other requirements. These include a study, by an outside expert, on streamlining government functions and also the services of an outside officer to establish a training centre of senior positions.

Altogether the five year plan calls for a total expenditure on development of over $WS 44 million, of which $WS 31 million was to come from foreign aid - equivalent to $WS 207 per head of Western Samoa's population. Agriculture was to get 28 per cent of this total expenditure, industry and tourism 11 per cent, social services 17 per cent, and infrastructure 44 per cent.

In accordance with the Five Year Plan's hope, there is now a Department of Economic Development which, in 1977, issued a first, regular Annual Development Plan. It reported that, during the previous two years development expenditures had averaged less than $WS 11 million or about 86 per cent of the rate needed to carry out the Five Year Plan. Some catching up was needed, so that 1977 development expenditures were set at a high level of $WS 16.9 million because of favourable economic circumstances. More than three-fifths of all development expenditure in the three years, 1975-1977, came from foreign aid. No review, however, was given of the progress made with projects in the various economic sectors.

/D. CONCLUSIONS

D. CONCLUSIONS

It was shown is Section B, that most Pacific Island countries have already surpassed the target level of GDP per head for 1990 which is set by the Leontief Scenario X for Low Income Asia, and also that their nutritional and health standards are already at a comparatively high level. But reasons have also been found for pessimism about attaining the target growth rate for GDP per head set by the Leontief Scenario for the 1980's - 4.25 per cent a year.

In the decade 1965-74, only Fiji and American Samoa had reached this growth rate although Papua New Guinea came near to it with an actual growth rate of 4.1 per cent a year. (Table A. 2). Among these countries whose plans could be considered in Section C, only Fiji had set a target growth rate for the second half of the 1970's which exceeded the Leontief target (5.7 per cent a year). The Trust Territory of the Pacific Islands and Tonga had set target rates of 3.5 - 3.7 per cent a year, but targets set in Papua New Guinea, the Gilbert Islands and the Solomon Islands were such as to barely maintain present levels of per capita real incomes. Similar information is lacking for other Pacific Island countries, but Tuvalu's position must be worse than that of the Gilbert Islands, and the Cook Islands could hardly contemplate a higher per capita growth rate than Tonga. Both Western and American Samoa, however, might contemplate a somewhat higher one. Per capita incomes are high in New Caledonia and French Polynesia, but from 1965 to 1974, the former had a growth rate of only 3.8 per cent, in spite of a strong boom in nickel, and the latter had, if the World Bank's estimate can be trusted,[1/] a negative growth rate of per capita income, in spite of a major development of nuclear testing. There could be more optimism in the New Hebrides, which has just begun national economic planning and which has just published a surprisingly high local estimate of GDP per head.[2/]

This kind of pessimism seems disappointing in that most Pacific Island countries are far from being overpopulated and, except on the atolls which comprise so much of the Trust Territory, the Gilbert Islands and Tuvalu, natural resources are adequate to provide a potential for vigorous economic growth. In the Gilbert Islands and Tuvalu, too, the near exhaustion of Ocean Island phosphate, upon which their economies have so heavily depended, gives more than sufficient reason for pessimism.

/It is also

1/ See Table A. 2, footnote g.

2/ See p. 39, footnote 2.

It is also true that New Caledonia has depended overwhelmingly on nickel exports and that, so long as this situation persists, its growth will be governed by world demand for nickel. Papua New Guinea's growth from 1965 to 1974 also owed much to the development of Bougainville copper at a time when world demand for this, as for other minerals, was exceptionally strong. Papua New Guinea is not counting upon any similar resource project coming into operation before 1980 but a few seem likely to do so in the 1980's. If, moreover, nickel has recently been depressed, Leontief, estimates put its growth rate at 4.95 per cent for the 1980's (Table B. 1), and New Caledonia has a barely exploited potential for agriculture and forestry.

Potentials for agriculture, forestry and fishing are also considerable in Papua New Guinea, the Solomon Islands, the New Hebrides, Fiji and Western Samoa. Fishing is already well developed in American Samoa but not agriculture. Tonga also has a considerable, if lower, agricultural potential as have the Cook Islands and French Polynesia. In all these countries, moreover, there is some potential for developing manufacturing industries to process local resource outputs, and more especially those industries which could lower present excessive dependence on imports.

In many respects, the high ratios of imports and foreign aid to GDP make for a precarious economic situation of nearly all Pacific Island countries; New Caledonia is the only exception. The Trust Territory, Papua New Guinea, the Solomon Islands, and Fiji plan to reduce this dependence and, to a minor extent, that explains the very modest growth targets set in Papua New Guinea and the Solomon Islands. But the Gilbert Islands and Tuvalu have become more dependent on foreign aid through the exhaustion of phosphate, and both Tonga and Western Samoa are expecting more, rather than less foreign aid, to realize their current economic plans. So, apparently, will the New Hebrides.

A major reason for low target rates of growth is a general desire to improve the markedly inferior real income of the subsistence sector which is still so large a part of all Pacific Island economies, except perhaps Fiji and New Caledonia. Fiji, moreover, has a high target rate of growth for per capita income and New Caledonia a high average level of per capita income. In other countries, the subsistence sector is not only poor and large but has a very low growth rate for its own productivity. That, and a similar position for

/other non-plantation

other non-plantation agriculture, is connected with traditional arrangements for land tenure and sharing of real income. It is also connected with a lack of economic motivation for productive effort and innovation, which may go deeper than the serious constraints imposed by their traditional arrangements for village or tribal agriculture.

Yet all these countries, for good reasons, have come, since gaining independence, to put a high social value upon preserving their traditional culture as well as upon fostering a greater degree of income equality. It cannot be easy to find solutions which combine these aims with that of vigorous growth of GDP, and certainly no quick solutions are in sight. They must, therefore, make for comparatively minor gains in real income during the 1980's unless major resource projects come to light and fruition. Papua New Guinea can hope for something, in the 1980's, from Ok Tedi copper and other mineral prospects; Fiji from forestry; Western Samoa from fishing; the Solomon Islands and the New Hebrides from both forestry and fishing. But, except perhaps in Fiji, the peasant farming sector is a major brake on equitable growth.

Some help, of course, may come from slower population growth, as the Solomon Islands are hoping for. That could also be important in the Trust Territory, Papua New Guinea, the New Hebrides, Tonga and the two Samoas where rates of natural increase are 3 per cent or higher - well above the target rate of 2.56 per cent set by Leontief's Scenario X. Such reduction could be especially important in Tonga and Western Samoa as so many of their young people have sought work in Australia or New Zealand. It could also be important in the Gilbert Islands and Tuvalu which have a comparatively low rate of natural increase (1.8 per cent) but which have very limited land and a high proportion of their people working outside the country to which they belong.

Minor help could also be given by the UN proposal for a Common Fund to finance buffer stocks for a number of primary commodities. It has been envisaged that a beginning would be made with this ambitious proposal for some 18 commodities. These include vegetable oils, sugar, tropical timber, coffee, cocoa, bananas, tea, rubber and copper, all of which are, or have been, important exports for one or more of the Pacific Island countries. So, too, is bauxite, for which there is a potential in the Solomon Islands. At present only Fiji produces commercial sugar, but there is a potential for this in

Papua New Guinea and probably in other countries. There could, too, be more cultivation of cocoa and coffee in the New Hebrides, New Caledonia and Western Samoa, and of rubber in Papua New Guinea. Timber exports, moreover, as we have seen, could be much further developed in Papua New Guinea, the Solomon Islands and Western Samoa, and some other Pacific Islands could follow Fiji's example of planting exotic forests.

On the whole, it would seem that present limitations on economic development in the Pacific Island countries are more internal than external. High concentrations of export receipts on a few commodities is a disadvantage, but the Common Fund arrangements could lessen this and there is, in any case, considerable scope for both export diversification and import substitution. A high degree of dependence on foreign aid is also a disadvantage and such aid is quite unevenly distributed between countries. Nevertheless aid has been comparatively generous and there is every indication that it will increase for countries requiring it. Most of such aid, moreover, has been of the grant type, and only Fiji has a substantial external debt whose service, however, in 1976, took less than 5 per cent of its receipts from merchandise exports.

The major problems are connected with motivation of the ordinary people for economic advancement, giving them adequate training in modern agricultural and industrial methods, providing adequate organization and incentives for using these methods and adapting them to local conditions, and fostering development of entrepreneurial talent, including its innovative aspects. All this, moreover, would have to be done in such a way as not to undermine traditional values and institutions upon which most, if not all countries, put overriding value. That is a very difficult task, demanding much more than expertise in economic planning on either the macro or the project level. By its very nature, it demands more from local élites than from foreign aid in all its forms, indispensable though such aid will have to be for many years to come.

/BIBLIOGRAPHY

BIBLIOGRAPHY

American Office of Samoan Information — American Samoa, 1975 and 1976, Pago Pago.

Asian Development Bank — Key Indicators, Vol. VIII, No. 2, October 1977, Manila.

Baxter, P.F. — An Input-Output Matrix For Papua New Guinea 1972-73, Monograph 5, 1976, Boroko.

Cook Islands: Central Planning Bureau — Quarterly Statistical Bulletin, October-December, 1976, Rarotonga.

European Communities Commission — Background Report, May 24, 1977, London.

Fairbairn, I.J. — Rural Development and Employment Promotion: The South Pacific Context, International Institute for Labour Studies, IEME 3068, November 1974, Geneva.

Summary of Industrial Investment Incentives in Selected Pacific Islands, South Pacific Commission, June 1975, Noumea.

Fiji: Bureau of Statistics — Current Economic Statistics, July 1977, Suva.

Central Planning Office — Fiji's Seventh Development Plan 1976-1980, November 1975, Suva.

Gilbert and Ellice Islands: — Draft Development Plan, 1973-1976, 1973, Tarawa.

Institut d'Émission d'Outre Mer — Rapport d'Activité Exercise 1976, Nouvelle Calédonia, Novelles Hébrides, Polynésia, 1976, Paris.

Leontief, W. and Associates — The Future of the World Economy, 1977, New York.

New Hebrides: Joint Office of Development Planning — Estimates of National Accounts for the New Hebrides, July 1977, Vila.

Factor Affecting the Choice of Development Objectives, August 1977, Vila.

New Hebrides Condominium — Overseas Trade, Statistical Bulletin, No. 4.4, November 1977, Vila.

O'Neill, H. — A Common Interest in a Common Fund, UNCTAD 1977, New York.

/Pacific Publications

Pacific Publications Pty. Ltd.	Pacific Islands Monthly, various issues, Sydney.
	Pacific Islands Yearbook, twelfth edition, 1977, Sydney.
Papua New Guinea: Bank of Papua New Guinea	Quarterly Economic Bulletin, various issues, Port Moresby.
	Report and Financial Statements, 30th June 1977, Port Moresby.
Central Planning Office	Highlights of the PNG Economy, April 1977, Waigani,
	National Development Strategy, 27 October 1976 and November 1976, Waigani.
	Programmes and Performance 1976-77, August 1976, Port Moresby.
	The Post Independence National Development Strategy, October 1976, Waigani.
Department of Finance	Quarterly Summary of Economic Conditions, June Quarter 1977, Waigani.
Papua New Guinea: Department of Primary Industry	Facts and Figures 1977, 1977, Konedobu.
Minister for Finance	Budget Speech 1977, 30 August, 1977, Port Moresby.
Solomon Islands:	National Development Plan 1975-79, Vols. I and II
South Pacific Commission	Overseas Trade 1975-76, Statistical Bulletin No. 11, August 1977, Noumea.
	South Pacific Economies: Statistical Summary, September 1977, Noumea.
	Sub-Regional Training Course on Atoll Cultivation, 1977, Tarawa.
	Unpublished Data Sheets, 1977, Noumea.
Tonga: Central Planning Office	Third Development Plan 1975-1980, February 1976, Nuku'alofa.
Trust Territory of the Pacific Islands:	Five Year Indicative Development Plan 1976-1981, July 1976, Congress of Micronesia.

/United Nations

United Nations

Direction of Trade, various monthly issues, Washington.

Direction of Trade, Annual 1970-76, 1977, Washington.

International Financial Statistics, May and December 1977, Washington.

Monthly Bulletin of Statistics, various issues, New York.

Statistical Yearbook for Asia and the Pacific, 1975, Bangkok.

United Nations Conference on Trade and Development

Handbook of International Trade and Development Statistics, 1976, New York.

United Nations Development Programme

Country Programme for Tonga, 22 September 1975.

United Nations General Assembly

Secretariat Working Papers on:

American Samoa	1 June 1977
Gilbert Islands	25 April 1977
New Hebrides	3 August 1976
Solomon Islands	4 March 1977
Trust Territory of the Pacific Islands	25 June 1977
Tuvalu	21 April 1977

United States:
Department of State

Trust Territory of the Pacific Islands, 1975 and 1976, Washington.

Western Samoa:
Department of Economic Development

Annual Development Plan 1977, January 1977, Apia.

Economic Indicators, May 1977, Apia.

Third Five Year Development Plan 1975-1979, November 1975, Apia.

World Bank

Atlas, 1976, Washington.

Papua New Guinea: Economic Situation and Development Prospects, Report No. 1150-PNG, July 14, 1976.

Papua New Guinea: Country Economic Memorandum, Report No. 1428-PNG, October 5, 1977.

. . . . .